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EVALUATION OF THE MORE EFFECTIVE SCHOOLS PROGRAM. SUMMARY REPORT.

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THIS REPORT SUMMARIZES THE NEW YORK CITY BOARD OF EDUCATION EVALUATION OF ITS MORE EFFECTIVE SCHOOLS (MES) PROGRAM. MES, ESTABLISHED TO IMPROVE THE BASIC READING AND ARITHMETIC SKILLS OF DISADVANTAGED ELEMENTARY SCHOOL CHILDREN, WAS INSTITUTED IN 21 SCHOOLS HAVING THE HIGHEST NUMBER OF PUPILS WITH LOW READING LEVELS, ENGLISH LANGUAGE HANDICAPS, AND POVERTY BACKGROUNDS. ITS SALIENT FEATURES WERE PRESCHOOL CLASSES, REDUCED CLASS SIZE, ADDITIONAL ADMINISTRATIVE AND ANCILLARY PERSONNEL, AND HETEROGENEOUS GROUPING. SOME OF ITS GOALS WERE TO CONDUCT THE PROGRAM IN INTEGRATED SCHOOLS AND TO ACTIVELY INVOLVE THE COMMUNITY. INNOVATIONS IN TEACHING METHODS AND MATERIALS WERE ALSO PART OF THE PROGRAM. ONE CHAPTER OF THE REPORT OUTLINES THE PROPOSED GOALS OF THE PROGRAM AND EXAMINES THE EXTENT TO WHICH THEY WERE IMPLEMENTED. ANOTHER CHAPTER OFFERS SELECTED DESCRIPTIVE STATISTICS AND THE FOLLOWING ONE REPORTS THE EFFECTIVENESS OF THE PROJECT IN STIMULATING PUPIL GROWTH IN READING AND ARITHEMETIC. OTHER CHAPTERS DESCRIBE TWO LANGUAGE DEVELOPMENT PROJECTS AND SUMMARIZE THE REACTIONS OF ADMINISTRATORS, TEACHERS, AND PARENTS TO THE MES PROGRAM. THE RESULTS OF THE APPRAISAL ARE "GENERALLY FAVORABLE." THE REDUCED CLASS SIZE AND PREKINDERGARTENS WERE SOME OF THE MOST VALUED FEATURES. TEST RESULTS SHOWED FAVORABLE PUPIL GROWTH IN READING, ARITHMETIC, SPEECH, AND ORAL COMMUNICATION. THE MAJOR RESERVATIONS WERE ABOUT THE GROUPINGS, THE LARGE ADDITION OF SCHOOL STAFF, AND THE NEED TO MEET THE DEMANDS TO ESTABLISH MES IN OTHER COMMUNITIES. (NH)

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EVALUATION OF THE MORE EFFECTIVE SCHOOLS PROGRAM
SUMMARY REPORT

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INTRODUCTION

A. Background Information

In New York City today, there are thousands of children of Spanish speaking background, recent arrivals from Puerto Rico, as well as children from the South. Many of these children have not been achieving well enough in elementary school to be able to cope successfully with further educational demands. Retardation in reading and arithmetic of two years or more at the end of grade six makes intermediate and secondary education very difficult, and thousands of children drop out of school before completing their education. In 1964 a Joint Planning Committee was formed to investigate possibilities whereby the New York City Board of Education could develop facilities which would conserve and utilize as fully as possible the human resources represented by these children. The Committee was made up of representatives of the Superintendent of Schools, the United Federation of Teachers, and the Council of Supervisory Organizations. The Committee issued the Report of Joint Planning Committee for More Effective Schools to the Superintendent of Schools on May 15, 1964.

The report on May 15, 1964, set forth the philosophy underlying what was to be called the More Effective Schools program: "There are too many children in our community who are growing up without the basic skills necessary for future success as citizens. We believe that these children, properly challenged and given the means for growth and learning, can make unprecedented academic and social progress. To meet this challenge a new design for education must be created." The design recommended by the Committee was one that would focus on the prevention of academic failure in the early years by starting education at the prekindergarten level and by organizing small classes to insure individual attention for each child's needs. Many teachers of special subjects and a clinical team for each school were to be provided. Classes were to be heterogeneous; that is, children of varied achievement levels in a given grade were to be placed in the same classroom. Intensive teacher training was to be part of a program which included as major educational strategies team teaching and non-graded instruction.

The schools selected for the program were to be located in socially disadvantaged areas in the city. They were all previously to have been Special Service schools, a designation which signifies that low reading level, percentage of free lunches and English language handicap indicate more severe problems than are found in other schools in the New York City System. It was also necessary that each of the schools selected for the program utilize no more than 70 per cent of its available capacity because of the lowered class maximum size and the institution of prekindergarten classes.

The More Effective Schools program was put into effect in the fall of 1964 in the following ten schools: 83M, 100M, 154M, 1X, 102X, 106X, 120K, 138K, 40Q, 18R. It was expanded in the fall of 1965 to the following additional eleven schools: 11M, 146M, 168M, 110X, 41K, 80K, 165K, 307K, 37Q, 183Q, 31R.

B. Description of the Program

While there are differences from school to school in one or another aspect of the program, the basic design is common to all schools. Chapter I of this report deals with the specific goals prescribed by the Planning Committee and defines the extent to which these goals were realized in the More Effective schools. This chapter will therefore only present an outline of the basic features of the program.

1. School Organization

a. Prekindergarten classes: All schools have established prekindergarten classes for four year olds and some of the schools have classes for three year olds.

b. Class size: There are a maximum of 15 students in prekindergarten classes, 20 in kindergarten and 22 in grades 1-6.

c. Clusters: Classes are organized to form clusters, each of which consists of two classes at the prekindergarten level and three in all other grades. Each cluster has an extra teacher, the "cluster" teacher, who does not have a home class of her own but spends one period or more each day with each of the classes in the cluster.

d. Preparation period: All teachers have one preparation period per day. This is made possible by the presence of the cluster teacher.

e. Heterogeneous grouping: Classes are organized heterogeneously; that is, at each grade level, there are children of varying ability in each class. Within the class, however, the teacher can group and regroup according to interest and ability.

2. Personnel

a. Administrative assistant: Each principal has an administrative assistant who handles many of the organizing and scheduling duties that previously occupied much of the time of the principals. This is intended to free the principals to expand their supervisory and person-to-person functions in the school.

b. Assistant Principals: Each school has at least three assistant principals. Each assistant principal covers one of the following groupings: Prekindergarten-grade 2, grades 3-4, grades 5-6.

c. Pupil personnel team and other special services: Each school has a team made up of three guidance counselors, one psychologist, one social worker, and one attendance teacher, all full time. Each school also has the services of a psychiatrist and a clinical speech teacher one day a week.

d. Other Teaching Positions (OTP's and Special Teachers): During the 1964-65 and 1965-66 school year each school had a team of approximately 7 teachers who were selected by the principal to best meet the needs of the school in the following areas: library, reading instruction, corrective reading, art, music, audio-visual, science, language resource and health education. A speech improvement teacher was supplied full time for each school by the Bureau of Speech Improvement. (This was in addition to the part-time clinical speech teacher.) These teachers were used for teacher training, demonstration and team teaching. They also covered classes in order that each cluster team of teachers could plan together one period weekly.

3. Integration

a. Location of Schools: Where possible, integrated schools were chosen for the program. However, due to the requirements that a school be a Special Service school and be only 70 per cent utilized, it was not always possible to select integrated schools.

b. Reverse Open Enrollment: White parents have been sending their children to four of the More Effective Schools which contain predominantly Negro or Puerto Rican children.

c. Community Relations Coordinator: There is one coordinator on the staff of each school whose duty it is primarily to involve the community in active participation with the school. This he does by contact with the PTA and community religious and social organizations. The coordinator also conducts discussion groups for parents and courses for teachers.

4. Teaching Methods and Materials

a. Flexible grouping: Each class reflects a wide range of interests and abilities, since classes are not organized homogeneously according to ability. Teachers are expected to group within the class, however. Often there will be two teachers (class plus cluster or OTP) within one class. This allows for a variety of small group and individual instruction. In addition, grouping may occasionally take place within the whole cluster, when children in all three classes having a particular interest or problem are brought together for special work.

b. Team teaching: With the older children, classes in a cluster are sometimes brought together with one class teacher, cluster teacher or OTP teacher teaching the lesson. The large group is then broken up into small discussion or activity groups, each one being led by one of the teachers. The teachers in a cluster plan together as a team and coordinate lessons and teaching materials.

c. Supplies and textbooks: Each More Effective School receives an extra allotment for supplies, textbooks, and visual and auditory aids. Special emphasis is placed on texts and other materials which stress urban backgrounds and deal with city children of varied racial and economic backgrounds.

d. Instructional emphasis: The goals of the program are many, but prime emphasis is placed on the improvement of language skills in general and reading ability in particular.

C. Scope of the Evaluation

The More Effective Schools program is both comprehensive and complex; it presents a wealth of possibilities for experimental investigation. The Office of Research concentrated on selected specific research aims for the first two years of the investigation. The outline as developed by the Planning Committee laid down a very definite program that was designed specifically to meet the problems inherent in educating children in disadvantaged urban areas. Has this "prescription" actually been followed? Chapter I presents each of the features of the proposed new schools as set down by the Committee in its report and examines the extent to which each feature was implemented in the More Effective Schools. Chapter II presents in detail some statistics which describe selected aspects of the program. The areas covered are: class size and pupil-teacher ratio, cost of instruction per pupil, pupil attendance, pupil mobility, and ethnic composition of the school population.

The research of the past two years has concentrated on the academic goals of the program. Chapter III presents an analysis of the results of standardized reading and arithmetic tests which were administered to project and control pupils. Since a major focus of the program is on the development of language ability, Chapter IV is devoted to the description of two projects in this area. One is an investigation of the oral communication skills of prekindergarten and kindergarten children and the other a description of the special speech improvement program administered by the Bureau of Speech Improvement.

Chapter V contains a summary of data from questionnaires which were designed to elicit the reactions to the program of district superintendents, principals, teachers, and parents.

Chapter VI is a summary of the material presented in the first five chapters.

CHAPTER 1

IMPLEMENTATION OF THE OBJECTIVES OF THE MORE EFFECTIVE SCHOOLS PROGRAM

On May 15, 1964, a committee consisting of representatives of the United Federation of Teachers, the Council of Supervisory Associations, and representatives of the staff of the Superintendent of Schools, Calvin E. Gross, issued a nineteen page booklet called Report of Joint Planning Committee for More Effective Schools.

This report contains twenty policy statements pertaining to pupils and curriculum, personnel, school plant and organization, and community relations. These statements define the means by which the committee proposed to make the designated schools more effective, and when implemented, these statements were to describe the essential elements of the More Effective Schools program.

The twenty statements, broken down by respective area, are as follows:

PUPILS AND CURRICULUM

1. Integration will be a major factor in the choice of schools for the More Effective Schools Program.

2. The program will provide for education beginning at ages 3-4.

3. The school will be open from 8 a.m. - 6 p.m. with programs to meet the needs of the pupils.

4. Class size will vary from 15 in prekindergarten classes to a maximum of 22 in other grades.

5. Classes will include children with a wide range of abilities and personality traits, heterogeneously grouped. Individualized instruction in the 3 R's, will be provided for through flexible grouping.

6. Promising modern teaching methods will be implemented under optimum conditions. These will include team teaching, and non-graded blocs consisting of early childhood grades, grades 3-4 and 5-6.

7. Abundant supplies of modern teaching materials appropriate to urban communities will be necessary.

8. Provision will be made to meet the needs of children with physical, emotional, and social problems through a teacher, guidance and medical team.

9. Efforts will be made to overcome the effects of pupil and family mobility through closer cooperation with the Department of Housing, the Department of Welfare, and other social agencies. In addition, adjustments will be made in the present transfer regulations to encourage pupils to remain in their schools.

10. Close relations will be established with local colleges and universities for purposes of teacher training, curriculum development, research, and evaluation and project development.

11. Maximum use will be made of the newest techniques in audio-visual instruction including closed circuit T.V.

12. Teacher specialists in art, music, and other curriculum areas will be used to enrich the instructional program.

PERSONNEL

1. Efforts will be made to recruit a staff which is enthusiastic, able, and committed to the program. This will be achieved through the democratic involvement of teachers and supervisors.

2. Provision will be made for a continuous program of professional growth including payment by the Board of Education for one college course per semester.

3. In order to give teachers maximum time for concentration on instruction, teachers will receive a daily unassigned preparation period, and relief from all non-teaching duties.

SCHOOL PLANT AND ORGANIZATION

1. Maximum use of the school plant will be made for a full school day, weekend and during the summer months.

2. Facilities will be sought for outside the regular school plant, in office buildings, settlement houses, etc.

3. Schools will be located so as to achieve maximum integration.

COMMUNITY RELATIONS

1. Each school will have a Community Relations Expert to promote good human relations among the children, the staff, and the community.

2. Wide and sustained community involvement will be encouraged through the parent associations, parent workshops, and community organizations.

Since the More Effective Schools program was to be evaluated in terms of the foregoing statements of policy, it was imperative that a study be made of the extent of implementation of each statement. That is, it was essential that the More Effective Schools program be evaluated not as it was envisioned, but as it actually operated. It is the purpose of this chapter, then, to provide information on operational procedures against which the effectivesness of the program may be measured. Thus, if the findings have indicated certain weaknesses, these may be attributable to inadequate implementation rather than to faulty planning by the committee. The remainder of this report uses the twenty policy statements as a framework and presents data to indicate the extent to which each was implemented.

Pupils and Curriculum

1. "Integration will be a major factor in the choice of schools for the More Effective Schools Program."

Table 1, below, indicates the ethnic distribution in the 21 More Effective Schools as of October 1964 and October 1965. The table reveals that integration is far from a reality in many of the More Effective Schools. For example, 12 of the 21 schools had fewer than ten per cent of "Other" children in 1965, and only two schools came close to approaching ethnic balance among the three groups. One of the factors involved here is that, in order for a school to be designated as a potential More Effective School it was required that the school be utilized to only 70 per cent of its available capacity. This was necessary since the reduced class size resulted in an increase in total number of classes, thereby making greater demands on space.

Table 1

Percentages of Puerto Rican, Negro and "Other" Pupils in the 21 More Effective Schools on October 1964 and October 1965

	October 1964			October 1965		
School	% P.R.	% Negro	% Other	% P.R.	% Negro	% Other
11M	62.8	6.8	30.4	52.8	9.8	37.2
83M	69.9	23.5	6.6	70.4	23.1	6.5
100M	1.1	98.9	0.0	0.9	98.9	0.2
146M*	-	-	-	51.1	41.2	7.7
154M	6.2	93.5	0.3	4.8	95.2	0.0
168M	52.9	35.9	11.2	61.2	33.2	5.6
1X	43.1	45.2	11.7	51.1	39.1	9.8
102X	11.6	19.1	69.3	13.8	17.1	69.1
106X	13.4	19.1	67.5	13.5	17.5	69.0
110X	46.2	51.8	2.0	44.8	52.6	2.6
120K	78.1	17.8	4.1	77.6	17.6	4.8
41K*	-	-	-	29.6	67.9	2.5
80K	33.8	19.7	46.5	41.3	28.1	30.6
138K	7.2	88.3	4.5	5.9	91.2	2.9
165K	12.2	65.8	22.0	15.2	60.1	24.7
307K*	-	-	-	30.5	67.4	2.1
37Q	1.8	83.4	14.8	8.7	75.5	15.8
40Q	3.1	96.7	0.2	3.6	96.2	0.2
183Q	12.8	46.4	40.8	14.2	47.3	38.5
18R	4.4	41.2	54.4	3.7	39.1	57.2
31R	6.3	47.7	46.0	7.3	50.5	42.2

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*P146M, P41K, and P307K were not in existence during 1964-1965

2. "The Program will provide for education beginning at ages 3-4."

Table 2, below indicates the number of classes for 3 and 4 year old children in the More Effective Schools during school years 1964-5 and 1965-6. A glance at Table 2 will show the reader that while little is being done for the education of three-year-old children, the More Effective Schools Program is definitely aiding the education of four-year-olds. The number of classes for this latter group almost tripled -- from 30 in 1964-5 to 85 in 1965-6.

Table 2

Number of Classes for 3 and 4 Year Old Children in the 21 More Effective Schools During School Years 1964-5 and 1965-6

	1964-5		1965-6	
School	No. of classes for 3-year-old children	No. of classes for 4-year-old children	No. of classes for 3-year-old children	No. of classes for 4-year-old children
11M	0	0	0	4
83M	0	2	0	4
100M	0	2	0	4
146M	0	0	0	4
154M	0	5	0	5
168M	0	0	0	4
1X	1	3	0	4
102X	0	2	0	2
106X	0	2	0	2
110X	0	0	0	2
120K	0	2	0	4
41K	0	0	0	2
80K	0	0	0	4
138K	1	3	0	4
165K	0	0	0	4
307K	0	0	2	11
37Q	0	0	0	2
40Q	0	3	0	3
183Q	0	0	0	4
18R	0	6	0	8
31R	0	0	0	4
TOTAL	2	30	2	85

3. "The school will be open from 8 a.m. - 6 p.m. with programs to meet the needs of the pupils."

All schools in the More Effective Schools Program are actually open from 8:40 a.m. to 5:00 p.m. From 8:40 to 3:00 the children attend the regular school session; from 3 to 5 the After School Study Center takes over. The programs of these centers, tailored to meet individual needs, provide remedial, tutorial, library and enrichment classes. The centers are staffed by teachers of the regular school faculty and paid for by funds provided by the Office of Elementary Education.

4. "Class size will vary from 15 in prekindergarten classes to a maximum of 22 in other grades."

This policy statement has been fully implemented. Although for practical considerations (space limitations or not enough children to form an extra class) registers in some classes beyond prekindergarten may run to 23 or even 24, the average is below 22.

5. "Classes will include children with a wide range of abilities and personality traits, heterogeneously grouped. Individualized instruction in the 3 R's will be provided for through flexible grouping."

This statement, too, has been fully implemented. Grouping by class is done in a random manner to insure complete heterogeneity. Within classes, grouping is done by levels of achievement in various curriculum areas and according to special needs.

6. "Promising modern teaching methods will be implemented under optimum conditions. These will include team teaching, and non-graded blocs consisting of early childhood grades, grades 3-4 and 5-6."

About half of this statement has been implemented. That is, while all schools are using the team teaching method, only one school is using the non-graded bloc method -- and that only for 5- and 6-year-olds. In the More Effective Schools there is a team of four teachers for every three classes. Team teaching is done on all grade levels in all subjects. Classes are covered for one period a week so that the teachers may meet for a planning session.

7. "Abundant supplies of modern teaching materials appropriate to urban communities will be necessary."

This provision was fully implemented in the following manner: The schools received their normal quota of supplies through normal channels and then had these supplies supplemented by a special arrangement which brought the total to $25 per child. In addition, the More Effective Schools Program supplied extra funds to provide more audio-visual equipment.

8. "Provision will be made to meet the needs of children with physical, emotional, and social problems through a teacher, guidance and medical team."

Two of the three provisions of this statement have been implemented. That is, the teacher and guidance personnel members of the teams are in good supply; the medical aspect is nearly non-existent. In addition to teachers, each More Effective School has, on the average, the following personnel working together to help solve emotional and social problems among the children: 3 guidance counselors, 1 social worker, 1 psychologist, 1 attendance teacher, and a psychiatrist who spends 1/5 of his working time with the school.

9. "Efforts will be made to overcome the effects of pupil and family mobility through closer cooperation with the Department of Housing, the Department of Welfare, and other social agencies. In addition, adjustments will be made in the present transfer regulations to encourage pupils to remain in their schools."

This provision could not be implemented for several reasons: When parents had to move — for whatever reasons — they had to go where there was an apartment available. More frequently than not, this meant moving out of the school neighborhood. Despite the good intention of the Department of Housing and other agencies, vacancies are not to be found in all areas. Furthermore, after children had moved out of the More Effective School, there was no bus transportation (other than public) to take them back and forth to the school. Most parents felt that they could not afford the expense of the bus tickets. Perhaps this points to a need for parent education on the importance of continuity of education within a single school.

10. "Close relations will be established with local colleges and universities for purposes of teacher training, curriculum development, research, and evaluation and project development."

Joint programs have been established between More Effective Schools and the following colleges and universities: Brooklyn College, City College of New York, Queens College, New York Medical College, Yeshiva University, and Long Island University. These programs provide such activities as special teacher training courses, student teahhing, discussion groups (function of school and community), cooperation in improving undergraduate preparation of teachers, and so forth.

11. "Maximum use will be made of the newest techniques in audio-visual instruction including closed circuit T.V."

Closed circuit television using a single camera was used at P.S. 165K for direct teaching beamed to six classrooms. A complete range of audio-visual equipment was used by all schools in the More Effective Schools program. The equipment included 16mm sound motion picture and film strip projectors, film strip viewers, overhead projectors, 3¼ x 4 slide and opaque projectors, tape recorders and phonographs with earphone sets and connection boxes, radios and television receivers and cameras. The availability of such resources was closely associated with intensive teacher training and classroom teaching by an audio-visual specialist.

12. "Teacher specialists in art, music, and other curriculum areas will be used to enrich the instructional program."

Among the 21 schools in the More Effective Schools Program there are the following number of specialists:

Art	14
Music	19
Industrial Arts	2
Community Coordinator	21
Reading Improvement Teacher	13
Corrective Reading Teacher	19
Administrative Assistant	21
Audio Visual	21
English Language Resource	15
Librarian	21
Health Education (Phys. Ed.)	20
Science	8
Health Counselor	17

While some increases are needed, it is apparent that the above policy statement has been implemented to a considerable extent.

PERSONNEL

1. "Efforts will be made to recruit a staff which is enthusiastic, able and committed to the program. This will be achieved through the democratic involvement of teachers and supervisors."

Additional staff members for the More Effective Schools were recruited on a voluntary basis. A notice was sent to all schools in New York City describing the program, its objectives, and its operation. Interested teachers were asked to complete applications giving information on the following matters, among others: type of license held, educational background, experience in teaching and other pertinent experience. The applicants were then interviewed by the principals of the More Effective Schools. Observation in the schools indicates that this objective was realized, according to an independent research report by the Center for Urban Education.

Within the schools, a democratic climate is maintained by means of regular meetings between and among teachers, other members of the professional staff, supervisors, administrators, the assistant superintendent, and representatives of the United Federation of Teachers. At these meetings discussion deals with all aspects of the More Effective Schools curriculum including objectives and procedures. Table 3, page 8, presents data on staff composition in the More Effective Schools.

Table 3

Numbers of White and Negro Teachers Serving in Regular or Substitute Positions in the 21 More Effective Schools as of February 11, 1966

	Negro		White	
	Reg.	Subs.	Reg.	Subs.
Principal	1	0	20	0
Assistant Principal	9	0	62	0
Administrative Assistant	0	0	10	0
School Secretary	5	0	56	12-2/5
Teacher -Regular Class	89	35	661	178
Teacher - Kindergarten	7	9	99	28
Teacher - Pre-Kindergarten	10	11	78	26
Teacher - CRMD	5	0	10	0
Teacher - Health Conservation	2	1	7	5
Teacher of Library	1	0	6	0
Teacher - Swimming	0	0	1	0
Teacher - Home Economics	0	0	2/5	1
Teacher - Industrial Arts	0	0	1	1
Teacher - Speech Improvement	3-1/5	0	13-3/5	1
Guidance Counselor	8-2/5	0	38-3/5	1
OTP	37	8	129	26
Dist. 11 - Assigned Math Coordinator	0	0	1	0
Totals	177-3/5	64	1192-3/5	279-2/5

2. "Provision will be made for a continuous program of professional growth including payment by the Board of Education for one college course per semester."

Although no payment by the Board of Education for college courses was forthcoming, the above provision was largely implemented. For example, $105,468 was spent on orientation program for teachers and supervisors in the More Effective Schools program. In addition, in-service courses were given in Early Childhood Education. Yeshiva University provided 14 scholarships for teachers at one More Effective School, and Brooklyn College provided a seminar for all More Effective Schools Assistant Principals. Teachers College provided an internship program at P146M. For the school year 1966-67, both the Board of Education and the cooperating colleges are planning a series of in-service courses and seminars for teachers and supervisors in the Program.

3. "In order to give teachers maximum time for concentration in instruction, teachers will receive a daily unassigned preparation period, and relief from all non-teaching duties."

The provision for a daily unassigned preparation period has been implemented fully for all teachers in all schools. The provision for relief from all non-teaching duties has been largely, but not completely, implemented. In some schools safety hazards and placement of lunchrooms and yards require extensive professional supervision.

SCHOOL PLANT AND ORGANIZATION

1. "Maximum use of the school plant will be made for a full school day, week-end and during the summer months."

A glance at the chart which follows will show that while little use was made of the schools on week-ends, they were highly utilized in the evening and during summer.

School	Summer Day Camp	Summer Day School	3 P.M. 5 P.M.	7 P.M. 10 P.M.	Saturday	Sunday
11M	X	X	X	X	X	
83M						
100M		X				
146M		X	X			
154M	X	X	X			
168M	X		X			
1X	X		X	X	X	
102X	X		X	X	X	
106X	X					
110X						
120K	X	X				
41K		X				
80K	X		X	X		
138K	X		X	X		
165K	X		X	X		
307K						
37Q	X		X	X		
40Q	X		X	X	X	X
183Q		X	X			
18R	X	X	X			
31R						

2. "Facilities will be sought for outside the regular school plant, in office buildings, settlement houses, etc."

This provision has been implemented to a small degree. Specifically: The More Effective Schools Program is utilizing one church, one community center, one apartment house, and two old (unused) school buildings. All of these facilities are being used for regular classes only.

3. "Schools will be located so as to achieve maximum integration."

Although integration was to have been a major factor in the selection of More Effective Schools, other considerations, particularly space limitations and the needs of certain groups of children, were also taken into account. For this reason, among others, the schools are not as well integrated as the planners of the program had envisioned in their blueprint.

COMMUNITY RELATIONS

1. "Each school will have a Community Relations Expert to promote good human relations among the children, the staff, and the community."

   This provision has been implemented in 20 of the 21 More Effective Schools.

2. "Wide and sustained community involvement will be encouraged through the parent associations, parent workshops, and community organizations."

That this provision has been implemented is attested to by the following statement of duties of the Community Relations Experts: The Community Relations Expert has as his major objective to build a viable and education-focused parents' association and to coordinate the school's program in the area of special services, workshops, and other programs in which parents, school, and community are mutually involved. He attains this objective through the following activities:

Attends Executive Board and Parents' Association meetings.
Helps plan Parents' Association meetings and works with Parent Association.
Assists with publications of Parents' Association bulletins.
Assists with membership drives.
Attends liaison meetings with principal and other supervisors.
Coordinates the schools parent workshop program.
Develops Saturday and after-school cultural activities program.
Conducts courses for parents (School Curriculum, Leadership, Spanish, Human Relations).
Enlists parent volunteers for class trips, kindergarten registration, library services.
Assists with book fairs, cake sales, etc.
Assists parents with individual school problems and/or refers them to appropriate school authority.
Makes home visits on referral from principal.
Alerts parents to opportunities for adult education.
Administers clothing room with parent committee.
Enlists parent volunteers for class trips, kindergarten registration.

Helps make contacts with school social worker for city agencies (Department of Welfare, Housing, etc.).
Attends and participates in meetings of community organizations: (Police, YMCA, Community Councils, etc.).
Attends Local School Board meetings.
Prepares survey of community resources and personnel for utilization by the school.
Coordinates the summer camp placement with social worker.
Forms Community Relations Committee of parents, professional staff and associations.
Speaks at community meetings.
Helps develop and locate self-image material.
Develops Human Relations Committee.
Helps plan for orientation of teachers to the community.
Assists with observation of Pan-American Day, Discovery Day, etc.
Helps plan for the orientation of teachers in the community.
Confers with teachers.
Arranges for noon-time discussion groups.
Helps to develop class projects and/or lesson plans stressing multi-ethnic background of pupils.

Summary

It may be seen, then, that the More Effective Schools program as it operated was not significantly different from the program as it was envisioned. Some provisions became actualities in their entirety. These pertained to class size, heterogeneous ability grouping, teaching materials, cooperation with local colleges, audio-visual techniques, teacher specialists, staff recruitment, teacher preparation periods and the use of community relations experts. The remaining provisions received only partial implementation. Fewer than half of the schools were integrated; there were many classes for four-year olds but few for three-year olds; all schools used team teaching but only one used the non-graded bloc method; the pupil personnel team contained appropriate personnel for handling emotional and social problems, but did not include sufficient medical personnel for physical problems; some courses were offered to teachers and some scholarships were available, but financing did not come from the Board of Education; teachers did receive a daily preparation period, but not complete relief from all non-teaching duties; the school plant was used fully during the school day and the summer months but not during the weekends. There were no recommendations that were not at least fully implemented.

CHAPTER 2

SELECTED STATISTICS DESCRIBING THE PROGRAM

The basic objective of the MES program was to provide a classroom situation in which a quality education program could develop and be maintained. Part of the program designed to meet this goal was the assignment of additional pedagogical and non-pedagogical personnel to these schools, which resulted in much reduced class size and considerably lower pupil-teacher ratios. This chapter will present data on the extent of the reductions, as well as data on additional instructional costs resulting from the assignment of these personnel. Also, data on pupil attendance, pupil and teacher mobility, and the ethnic composition of pupil enrollment in these schools will be analyzed and summarized.

Average Class Size and Pupil-Teacher Ratio

Average class size and pupil-teacher ratio data for elementary grades in the More Effective Schools, the Community Zoned Schools, the Special Service Schools and All City-Wide Elementary Schools on October 1963, October 1964, and October 1965 are presented in Table 4, page 14. These data were obtained from the office of the Administrative Director in charge of Organization for Elementary Schools.

Average class size and teacher-pupil ratio are not the same. The difference arises from the fact that not every teacher assigned to a school is in charge of an organized class; though the non-classroom teachers work with children, their functions do not include the day-by-day responsibility for a class. Pupil-teacher ratio is computed by dividing the total pupil register of a school by the total number of authorized teaching positions in the school. Average class size, on the other hand, is computed by dividing the pupil register by the number of organized classes in the school.

The data show that, on October 1964, average class size in the More Effective Schools was 24.6; the Community Zoned Schools class size was 23.9; and the All City-Wide Elementary School size was 29.1. These figures declined from the previous October by 3.7, 4.9 and 0.4 respectively. As of the same date pupil-teacher ratio in the More Effective Schools was 14.1; the Community Zoned ratio was 18.2, Special Service was 23.2; and City-Wide Elementary Schools was 24.7. These ratios declined from the previous year by 10.9, 6.9, 1.0 and 1.4 respectively. The trend towards lower average class size and pupil-teacher ratio in the categories of schools under study, which began on October 1964, continued during the 1965-1966 school year, though the declines are not as striking on October 1965 as they were on October 1964. For each of the four types of schools under study, the average class size and pupil-teacher ratio continued to drop as of October 1965, the most marked drop in average class being 4.1 and 1.4 pupils respectively, for the More Effective Schools and the Community Zoned Schools. The most marked drop in pupil-teacher ratio was also noted in these two types of schools, the declines being 1.8 and 1.2 pupils respectively.

The trend towards lower average class size and pupil-teacher ratio in the four categories is the result of a policy to provide additional teaching positions, wherever possible to all elementary schools in the New York City School District, but especially to such experimental projects as the More Effective Schools and Community Zoned Schools in order that the objectives of these programs be realized. Though pupil register in the New York City elementary schools has increased each year during the period under study, provision for additional teaching positions has proceeded at a far more rapid rate, especially in the More Effective and Zoned Schools, thus accounting for the more dramatic declines in their average class size and pupil-teacher ratios.

Table 4

Average Class Size and Pupil-Teacher Ratio, More Effective Schools, Community Zoned Schools, Special Service Schools, and City-Wide Elementary Schools - Elementary Grades 1 - 8
October 1963, October 1964, and October 1965

	Average Class Size			Pupil-Teacher Ratio		
	October			October		
Type of School	1963	1964	1965	1963	1964	1965
More Effective Schools	28.3	24.6	20.5	25.0	14.1	12.3
Community Zoned Schools	28.8	23.9	22.5	25.1	18.2	17.0
Special Service Schools	27.9	28.1	27.9	24.2	23.2	22.8
City-Wide Elementary Schools	29.5	29.1	28.7	26.1	24.7	23.1

Pupil-Teacher Ratio in the Control Schools

In order to evaluate properly the results in academic achievement and other measures of pupil functioning for comparisons between the experimental and control schools, the conditions in the control schools must be taken into account. The lower pupil-teacher ratio in the MES schools is an important feature of the program and a potent influence in the experimental conditions. As of October 1965, the pupil-teacher ratio in the nine control schools was 23.3, which compares with 12.3 in the MES schools.

Per Pupil Costs of Instruction Proper

Tables 5 and 6, pages 16 and 17, present data on per pupil costs of instruction proper for the 1965-1966 school year for the ten More Effective Schools established in September, 1964; the eleven More Effective Schools established in September, 1965; and the nine control schools involved in the evaluation of the MES experiment. Instruction proper as generally defined refers to those expenditures for schools directly involved in the day-to-day instructional program within a school. For the purposes of this study, expenditures for instruction proper will include expenditures for salaries of classroom teachers, principals and assistant principals, school secretaries, guidance counselors, and school aides and expenditures for supplies and equipment.

Data on salaries have been obtained from the payrolls of the schools under study, as of April 30, 1966. The data on expenditures for salaries and supplies and equipment, and unit costs per pupil for the twenty-one More Effective Schools as seen in the tables, are presented in such a manner as to show the particular impact of those expenditures directly attributable to participation in the MES program. Thus, data showing costs of the regular program and the increment attributable to the MES program within each school are presented separately and then combined.

The data show that for the ten schools that had been designated as MES in September, 1964, the per pupil costs of instruction proper for all schools combined was $859.38. Considering the schools separately, it is seen that the unit costs per pupil ranged from $765.62 for P 1X to $946.28 for P 18R. The tables further show that approximately fifty per cent of the total per pupil cost for the ten schools combined and for the schools separately is directly attributable to participation in the MES program. The impact of the approximately 100 per cent higher per pupil cost resulting from the additional expenditures in the ten schools because of participation in the MES experiment can be better understood when it is noted that, for the 1964-1965 school year, the most recent year for which city-wide cost data are available, the cost per pupil for instruction proper for all city-wide elementary schools including kindergarten was $433.86. This is approximately one-half of the unit cost per pupil in the ten More Effective Schools combined. The MES program in this group of schools was financed primarily from city revenues; lesser amounts later were contributed from funds made available under the Elementary and Secondary Act of 1965.

Similar data for eleven elementary schools which became More Effective Schools in September, 1965 are also presented in Table 5. The data show that for all these schools combined the unit cost per pupil for instruction proper was $930.35, which is $70.97 more than the costs per pupil in the same years for the ten original More Effective Schools. In large part, the higher costs per pupil in the newer schools may be attributed to larger expenditures for supplies and equipment. The schools that became More Effective Schools in 1964 had received similar large allotments for the same purpose during their first year in the program, and a large part of the supplies and equipment was still in use in the 1965-1966 school year. The allotments for both sets of schools were used for such items as audio-visual equipment and textbooks.

When the eleven new MES schools are considered separately, the data show that the pupil costs ranged from $738.95 for P 110X to $1,322.43 for P 307K. The high unit cost per pupil for instruction proper for P 307K may be attributed to the assignment of considerable numbers of extra teaching positions. There was an average of 4.04 prekindergarten classes at each MES school, while at P 307K there were 11 prekindergarten classes. Since staff and equipment are more concentrated at the prekindergarten level than in the elementary grades the total costs at this school are higher than at the other schools and thus the per pupil increment is higher. In addition, P 307K was not completed until February, 1966 when total school register became 643. However, since there were fewer children in the school during the first four marking periods, the average daily attendance figure for the first six marking periods is only 322. It is the average daily attendance figure which is used as the divisor in computing the per pupil costs. In actuality then, the large influx of pupils in the fifth period resulted in making the per pupil costs seem higher than they were.

Examination of Table 5 will again show the effect of increased expenditures and increased unit costs per pupil in the eleven schools resulting from the MES program within the schools. For all schools combined, the additional cost per pupil directly attributable to the MES program within the school was $544.85. This was considerably higher than the pupil costs of the regular program and represented 58.6 per cent of the total cost per pupil. Unlike the ten original schools where the MES aspect of the program within each school was financed primarily from city revenues, in the eleven newer More Effective Schools this portion of the total program was financed from ESEA funds.

The expenditure and pupil cost data for the nine control schools presented in Table 6 will further offer a striking contrast to the cost of the instructional program in the twenty-one More Effective Schools. For all nine schools combined, the per pupil cost for instruction proper was $460.33, approximately one-half of what it was for the schools having MES programs. School by school differences are also discernible from the table and show that P 171Q had the highest per pupil cost for instruction proper ($691.57). Nearly all of the twenty-one MES schools exceeded that cost by considerable amounts.

Table 5

Expenditures for Salaries and Supplies and Equipment, Average Daily Attendance, and Per Pupil Cost of Instruction Proper, School Year 1965-1966. Ten MES Schools Established in the Fall of 1964.

	Salaries			Supplies and Equipment			Total Expenditures				Per Pupil Costs		
		MES			MES			MES				MES**	
School	Regular Program	Increment	Total	Regular Program	Increment	Total	Regular Program	Increment	Total	ADA*	Regular Program	Increment	Total
P 83M	394,802	374,630	769,432	15,011	3,505	18,516	409,813	378,135	787,948	922	444.48	410.12	854.60
P100M	380,662	423,657	804,319	14,707	7,213	21,920	395,369	430,870	826,239	900	439.30	478.74	918.04
P154M	425,353	458,849	884,202	18,120	3,859	21,979	443,473	462,708	906,181	960	461.95	481.99	943.94
P 1X	328,464	352,252	680,716	12,808	3,955	16,673	341,272	356,207	697,479	911	374.61	391.01	765.62
P102X	326,781	278,609	605,390	9,113	2,697	11,810	335,894	281,306	617,200	680	493.96	413.69	907.65
P106X	323,163	293,935	617,098	9,626	2,822	12,448	332,789	296,757	629,546	716	464.79	414.47	879.26
P120K	361,902	354,590	716,492	16,184	3,955	20,139	378,086	358,545	736,631	944	400.51	379.81	780.32
P138K	415,170	466,469	881,639	16,392	4,463	20,855	431,562	470,932	902,494	1,174	367.60	401.13	768.73
P 40Q	386,771	452,674	839,445	17,465	5,355	22,820	404,236	458,029	862,265	981	412.07	466.90	878.97
P 18R	359,169	392,663	751,832	12,566	3,984	16,550	371,735	396,647	768,382	812	457.80	488.48	946.28
All Schools Combined	3,702,237	3,848,328	7,550,565	141,992	41,808	183,800	3,844,229	3,890,136	7,734,365	9,000	427.14	432.24	859.38

Expenditures for Salaries and Supplies and Equipment, Average Daily Attendance, and Per Pupil Cost of Instruction Proper, School Year 1965-1966, Eleven MES Schools Established in the Fall of 1965.

School	Salaries Regular Program	Salaries MES Increment	Salaries Total	Supplies and Equipment Regular Program	Supplies and Equipment MES Increment	Supplies and Equipment Total	Total Expenditures Regular Program	Total Expenditures MES Increment	Total Expenditures Total	ADA*	Per Pupil Costs Regular Program	Per Pupil Costs MES** Increment	Per Pupil Costs Total
P 11M	317,392	349,117	666,509	8,517	22,801	31,318	325,909	371,918	697,827	685	475.78	542.95	1,018.73
P146M	274,063	467,099	741,162	28,164	24,005	52,169	302,227	491,104	793,331	826	365.89	594.56	960.45
P168M	275,053	345,581	620,634	17,037	24,305	41,342	292,090	369,886	661,976	721	405.12	513.02	918.14
P110X	306,317	315,791	622,108	15,267	26,205	41,472	321,584	341,996	663,580	898	358.11	380.84	738.95
P 41K	277,209	366,802	644,011	31,911	13,205	45,116	309,120	380,007	689,127	789	391.79	481.63	873.42
P 80K	119,600	206,086	325,686	13,627	8,212	21,839	133,227	214,298	347,525	385	346.04	556.62	902.66
P165K	245,441	280,396	525,837	15,748	23,205	38,953	261,189	303,601	564,790	651	402.21	466.36	867.57
P307K***	132,199	456,114	588,313	23,113	25,988	49,101	155,312	482,102	637,414	482***	322.22	1000.21	1,322.43
P 37Q	172,899	257,929	430,828	5,358	23,205	28,563	178,257	281,134	459,391	479	372.14	586.92	959.06
P183Q	309,039	368,331	677,370	10,871	24,205	35,076	319,910	392,536	712,446	783	408.57	501.32	909.89
P 31R	188,676	312,106	500,782	17,000	23,109	40,109	205,676	335,215	540,891	576	357.08	581.97	939.05
All Schools Combined	2,617,888	3,725,352	6,343,240	186,613	238,445	425,058	2,804,501	3,963,797	6,768,298	7,275	385.50	544.85	930.35

*First six attendance reporting periods of 1965-1966 school year.

**City-wide cost of instruction proper for day elementary schools including kindergarten in 1964-1965 school year 433.86; without kindergarten - 462.01. The MES figure includes the cost of prekindergarten classes where the small teacher-pupil ratio contributes significantly to a higher per pupil cost.

*** P307K did not have a complete register until February, 1966, after four reporting periods. The ADA figure, however, represents tne average for the first six periods combined. The per pupil increment however, includes the cost incurred after the school expanded to 641 pupils.

Table 6

Expenditures for Salaries and Supplies and Equipment, Average Daily Attendance and Per Pupil Cost of Instruction Proper, School Year 1965-1966 - Nine Control Schools

School	Salaries	Supplies and Equipment	Total	ADA	Per Pupil Cost
P 144M	$ 460,406	$ 14,476	$ 474,882	813	$ 584.11
P 161K	436,733	16,333	453,066	1,167	388.23
P 29X	749,512	30,807	780,319	1,887	413.52
P 93X	403,636	13,341	416,977	1,017	410.00
P 167K	563,688	15,954	579,642	1,399	414.33
P 184K	508,802	28,488	537,290	1,221	440.04
P 250K	503,666	15,257	518,923	1,028	504,79
P 171Q	439,679	14,680	454,359	657	691.57
P 44R	444,884	13,370	458,254	964	475.37
All Schools Combined	$4,511,006	$ 162,706	$ 4,673,712	10,153	$ 460.33

Pupil Attendance

This section presents an analysis of pupil attendance in the ten schools designated MES in September, 1964 and the eleven schools so designated in September, 1965. The data were analyzed for the 1963-1964, 1964-1965 and 1965-1966 school years, the year before and each of the two years immediately after the MES program was established (Table 7, page 18).

The data for the ten More Effective Schools established in September, 1964, showed little change in the per cent of attendance from year to year for each school during the period beginning with 1963-1964, and ending with 1965-1966. No observable trends are present with regard to the impact of the More Effective Schools Program upon pupil attendance in these schools.

Year-to-year comparison of pupil attendance rates in the eleven More Effective Schools established in September, 1965 provide even less information. Of the eleven schools, four were opened for the first time in September, 1965 and thus no comparisons are possible. The changes in the per cent of attendance between 1964-1965 and 1965-1966 for the remaining seven schools, generally were on the order of one per cent up or down. Thus it must be concluded that it is much too early to assess the effect of the MES program upon pupil attendance in the twenty-one schools.

Table 7

Per Cent of Attendance and Average Register in Twenty-One More Effective Schools Established in September 1964 and September 1965, School Years 1963-1964, 1964-1965, and 1965-1966, by School

	1963-1964		1964-1965		1965-1966	
School	Average Register	Per Cent of Attendance	Average Register	Per Cent of Attendance	Average Register	Per Cent of Attendance
Ten Schools Designated MES in September 1964						
P 83M*	-	-	1,113	90.0	1,016	90.7
P 100M	1,140	88.9	1,007	90.7	1,008	89.3
P 154M	1,193	90.1	1,098	91.9	1,063	90.3
P 1X	1,090	87.4	954	90.0	1,033	88.2
P 102X	882	90.8	834	90.2	766	88.9
P 106X	886	90.4	815	89.0	807	88.8
P 120K	1,040	89.1	1,124	88.2	1,058	89.3
P 138K	1,027	89.0	1,167	91.3	1,304	90.0
P 40Q	716	86.8	944	88.9	1,090	90.0
P 18R	825	91.1	861	91.9	907	89.6
Median	1,027	89.1	980	90.2	1,024	89.4
Eleven Schools Designated MES in September 1965						
P 11M	-	-	635	89.2	760	90.1
P 146M*	-	-	-	-	912	90.5
P 168M	-	-	1,339	88.5	835	86.3
P 110X	-	-	1,182	88.6	1,001	89.6
P 41K*	-	-	-	-	907	87.1
P 80K	-	-	1,055	82.3	487	79.0
P 165K	-	-	1,011	88.3	731	89.1
P 307K*	-	-	-	-	532**	90.5
P 37Q	-	-	514	92.8	516	93.0
P 183Q	-	-	826	89.6	875	89.5
P 31R*	-	-	-	-	635	90.7
Median			1,011	88.6	760	89.6

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*School was not yet opened in 1964-65.

**P 307K did not have a complete register until February, 1966. The figure, however, represents the average for the entire school year.

Pupil Mobility

Table 8, page 20, presents data on the per cent of pupil mobility and, in addition, on average register for the ten elementary schools designated as More Effective Schools in September, 1964. The data cover the school years 1963-1964, 1964-1965, and 1965-1966.

The concept of pupil mobility is rather technical. The figure for each school is arrived at by adding the number of children admitted during a given period to the number discharged during the same period, and then dividing the sum by the average register for the same period. The number of first-grade and kindergarten children admitted at the opening of school is subtracted from the total of admissions; these are expected as normal yearly additions to the school population. The admissions used in the formula generally represent transfers from other schools.

The data show that the per cent of mobility for the ten schools during the 1964-1965 school year ranged from 21.8 per cent for P102X to 77.1 per cent for P83M. A total of four schools (P40Q, P24K, P154M, and P100M) showed declines in mobility rate from the 1963-1964 school year, the declines ranging from 2.1 per cent for P24K to 10.6 per cent for P40Q. Five schools showed increases in rate from the previous year, though for three of them the increase was less than one per cent. For none of the schools showing increases in rate from the previous year, did the increase exceed four per cent. No 1963-1964 and 1964-1965 school year comparison data are available for P83M, since the school had not been organized at the time when period register and attendance data were compiled for the 1963-1964 school year.

For the 1965-1966 school year, the mobility rate for the ten schools ranged from 20.2 per cent for P102X to 51.4 per cent for P24K. The data showing per cent changes in mobility rate from 1964-1965 to 1965-1966 are somewhat different from those which were noted for the same schools between 1963-1964 and 1964-1965. The latter comparison showed that an almost equal number of schools showed either increases or decreases in mobility rate from the previous school year. The more recent data show that of the ten schools studied, eight schools showed declines in mobility rate from the 1964-1965 school year, the declines in rate ranging from 1.6 per cent for P102X to an appreciable 21.5 per cent for P83M. P138K also showed a considerable drop in rate (15.2 per cent) from the 1964-1965 school year. The remaining two schools, P100M and P1X showed extremely small increases in mobility rate, 0.4 and 0.2 respectively. For the three years under study, P102X continued to show the lowest mobility rates, while P154M, P24K and P40Q showed consistent declines in rate.

Table 8

Average Register and Per Cent of Pupil Mobility in Ten Elementary Schools Designated More Effective Schools in the Fall of 1964 School Years 1963-1964 through 1965-1966

	1963-1964		1964-1965			1965-1966***		
School	Average Register	Per Cent Mobility	Average Register	Per Cent Mobility	Per Cent Change 63-64 to 64-65	Average Register	Per Cent Mobility	Per Cent Change 64-65 to 65-66
P83M*	-	-	1,113	77.1	-	1,016	45.6	-21.5
P100M	1,140	45.2	1,007	40.2	- 5.0	1,008	40.6	+ 0.4
P154M**	1,193	31.2	1,098	28.3	- 2.9	1,063	25.3	- 3.0
P1X	1,090	48.0	954	48.3	+ 0.3	1,033	48.5	+ 0.2
P102X	882	18.6	834	21.8	+ 3.2	766	20.2	- 1.6
P106X	886	26.2	815	26.7	+ 0.5	807	22.1	- 4.6
P24K	1,040	57.9	1,124	55.8	- 2.1	1,058	51.4	- 4.4
P138K	1,027	50.4	1,167	51.2	+ 0.8	1,304	36.0	-15.2
P40Q	716	45.7	944	35.1	-10.6	1,090	28.9	- 6.2
P18R	825	31.6	861	35.3	+ 3.7	907	29.8	- 5.5

*School was opened after collection of 1963-1964 Period Register and Attendance Data.

**Formerly P157M.

***Data for this school year are for the first six attendance reporting periods of the 1965-1966 school year.

Table 9

Average Register and Per Cent of Pupil Mobility in Eleven Elementary Schools Designated as More Effective Schools in Fall 1965 School Years 1964-1965 and 1965-1966

	1964-1965		1965-1966**		
School	Average Register	Per Cent Mobility	Average Register	Per Cent Mobility	Per Cent Change 64-65:65-66
P11M	635	76.2	760	59.9	-16.3
P146M*	-	-	912	47.9	***
P168M	1,339	37.9	835	49.1	+11.2
P110X	1,182	53.0	1,001	56.4	+ 3.4
P41K*	-	-	907	56.3	***
P80K	1,055	94.5	487	50.1	-44.4
P165K	1,011	53.4	731	47.1	+ 1.0
P307K*	-	-	532	19.7	***
P37Q	514	44.4	516	33.3	-11.1
P183Q	826	42.5	875	43.5	+ 1.0
P31R*	-	-	635	43.5	***

*School was opened after 1964-1965 collection of Period Register and Attendance Data.

**Data for this school year are for the first six Attendance reporting periods of the 1965-1966 school year.

***No comparison is possible.

Table 9, page 20, presents similar data for eleven elementary schools designated as More Effective Schools in September, 1965. The data cover the school year preceding initiation of the program and the first year of its operation in these schools. The mobility rate during the 1965-1966 school year ranged from 19.7 per cent for P307K to 59.9 per cent for P11M. Nine schools in this group showed mobility rates exceeding forty per cent, while in the group of More Effective Schools established one year earlier, only four of the ten schools showed mobility rates exceeding forty per cent during the same year. No trend becomes discernible when the data are examined for changes from the 1964-1965 to the 1965-1966 school year. Of the eleven schools studied, no comparison is possible for four of them (P146M, P41K, P307K, P31R) because these schools were opened during the 1965-1966 school year. For the remaining seven schools, the data show that the mobility rate increased in 1965-1966 for three schools and declined in four others. Three schools (P11M, P80K and P37Q) showed substantial drops in mobility rate, the declines being 16.3, 44.4 and 11.1 per cent, respectively. The decline in rate for P80K in 1965-1966 (44.4 per cent) is particularly striking and may be attributed to the fact that when the school was designated as a More Effective School, its organization changed from K-6 to K-2 and hence the number of grades where admissions and discharges might occur was reduced.

Data on the per cent of pupil mobility and average register for the nine control schools involved in the More Effective Schools evaluation are presented in Table 10, page 22. The data show that, while six schools increased and two decreased in mobility rates in 1964-1965, the trend was reversed in the 1965-1966 school year, when seven schools declined and two schools increased.

It is not possible at present to arrive at any conclusions regarding trends in pupil mobility rates for the eleven elementary schools designated as More Effective Schools at the start of the 1965-1966 school year; incompleteness of data for comparison and insufficient time lapse obscure the meaning of the statistics. For those schools designated MES at the start of the 1964-1965 school year, pupil mobility declined in the second year of the program. except in two instances, where it remained relatively unchanged.

Table 10

Average Register and Per Cent of Pupil Mobility in Nine Control Schools
School Years 1963-1964 through 1965-1966

School	1963-1964 Average Register	1963-1964 Per Cent Mobility	1964-1965 Average Register	1964-1965 Per Cent Mobility	Per Cent Change 63-64 to 64-65	1965-1966** Average Register	1965-1966** Per Cent Mobility	Per Cent Change 64-65 to 65-66
P144M	1,133	43.8	977	39.1	-4.7	909	29.3	-9.8
P161M	1,217	28.7	1,242	29.8	+1.1	1,305	33.3	+3.5
P 29X	1,991	61.3	2,204	64.0	+2.7	2,212	50.5	-13.5
P 93X	1,101	41.0	1,080	33.7	-7.3	1,135	29.0	-4.7
P167K	1,385	42.4	1,413	49.5	+7.1	1,602	42.0	-7.5
P184K	2,120	71.3	2,176	74.0	+2.7	1,464	71.1	-2.9
P250K*	-	-	1,150	63.8	-	1,175	54.0	-9.8
P171Q	842	20.9	1,013	24.8	+3.9	766	23.0	-1.8
P 44R	1,044	17.7	988	20.4	+2.7	1,063	22.4	+2.0

*School opened after 1963-1964 collection of Period Register and Attendance Data.

** Data for this school year are for the first six attendance reporting periods of the 1965-1966 school year.

Teacher Mobility

In all non-MES schools, no more than five per cent of the teachers is allowed to transfer to other schools at the end of the school year. In the More Effective Schools, however, all teachers were given the option of transferring at the end of the school year if they so desired. It was found that during the school year 1965-1966 only 2.7 per cent of the teachers chose to transfer to other schools. An additional .4 per cent transferred to other More Effective Schools after they changed their place of residence.

An additional computation of teacher mobility was made with the definition of mobility being the quotient obtained by dividing the total number of teacher replacements by the total number of teaching positions. All teacher replacements are included regardless of the reason for leaving (maternity, sabbatical, transfer, or other reason), except those excessed because of lost budgeted positions. Comparison between the More Effective Schools and the control schools is difficult, though, because at the More Effective Schools there is a greater percentage of women due to the greater number of prekindergarten and kindergarten classes, and thus more mobility due to maternity leaves would occur. Table 11 presents the data on mobility regardless of reason at MES and control schools.

Table 11

Per Cent of Teacher Mobility
Twenty-One More Effective Schools and Nine Control Schools
School Year 1965-1966

	MES	CONTROL
Total number of budgeted teaching positions	1,487	420
Total number of teachers leaving October 1965 to June 1966	123	33
Total number of teachers replacing those leaving	92	27
Per Cent Mobility	6.2	6.4

Analysis of the data shows that the teacher mobility rate regardless of reason for leaving in the More Effective Schools was 6.2 per cent. For the control schools, the mobility rate was 6.4 per cent. Thus, the mobility rate regardless of reason for leaving for each category of schools was low and could not be considered a serious problem in either the More Effective Schools or the control schools.

Proportion of Regular and Substitute Teachers

The data of Table 12, below, reveal that the More Effective Schools and the control schools had identical proportions of regular and substitute teachers, seventy-four per cent of the teaching staff being regular teachers and twenty-six per cent being substitutes. Thus for both categories of schools, approximately three-fourths of the staff were regular appointees.

Table 12

Number and Per Cent of Regular and Substitute Teachers in Twenty-One More Effective Schools and Nine Control Schools, by Sex

	More Effective Schools						Control Schools					
	Regular		Substitute		Total		Regular		Substitute		Total	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
Male	119	8	48	3	167	11	46	11	14	3	60	14
Female	988	66	332	23	1320	89	264	63	96	23	360	86
Total	1107	74	380	26	1487	100	310	74	360	26	420	100

Ethnic Composition of Pupil Register

Tables 13 and 14, pages 25 and 26, present data on the ethnic composition of pupil registers in the More Effective Schools. Table 1 gives the number of children comprising each ethnic group and Table 2 gives the same information in terms of per cent. For all schools, data for the year immediately preceding that in which they became participants in the MES program are given, unless such data are not in existence because the schools were newly organized at the time when they were designated MES. Data for three years are generally available for those schools which became MES in September, 1964, and data for only two years for those which became MES in September, 1965. The data are as of October each year covered by this report.

Of the schools in the original group designated MES, the majority changed very little in ethnic composition, P1X was an exception, with an increase of 8.7 per cent in its Puerto Rican population from October, 1963, to October, 1965, and a decrease of 7.9 per cent in Negro pupils over the same period; the proportion of Others remained fairly constant. Another exception was P120K, which reported a 5.2 per cent increase in Puerto Rican pupils and a 3.8 decline in Other pupils over the two-year span. For the combined schools over this period, only Others changed notably in proportion, and this was only by 6.5 per cent - a decrease.

The data on changes in ethnic composition of the register in the eleven schools designated MES in September, 1965, present a slightly different picture. Among the eight schools for which data for comparison are in existence, P80K showed the largest decline in the proportion of Other pupils (15.9 per cent) from October 1964 to October 1965, while P11M showed the greatest percentage gain in Other pupils (6.8 per cent) during the same period. In all, 4 schools (P11M, P110X, P165K, and P37Q) showed some increase in the percentage of Other pupils on register, while four registered a decline. Five schools (P11M, P110X, P80K, P183Q and P31R) showed an increase in the proportion of Negro pupils on register during the period under study, the largest increase (8.4 per cent) being noted for P80K, while three showed declines, the largest drop (7.9 per cent) being seen for P37Q.

The changes involving Puerto Rican pupils in the ten older MES were generally very small. Analysis of the same data on Puerto Rican pupils on the 11 newer MES schools showed that the proportion of Puerto Rican pupils increased in six of the schools and declined in two others. For the remaining three schools no trend comparisons are possible since they were opened for the first time in September 1965. The proportion of Negroes increased slightly and that of Others decreased to the same extent.

Table 13

Numbers of Puerto Rican, Negro and Other Pupils on Register in Ten Elementary Schools Designated as More Effective Schools at Start of 1964-1965 School Year
Data for October 1963, October 1964, and October 1965

School	October 1963				October 1964				October 1965			
	PR	N	O	Total	PR	N	O	Total	PR	N	O	Total
P 83M*	-	-	-	-	798	269	76	1143	723	238	67	1028
P100M	11	1177	0	1188	11	1022	0	1033	9	1029	2	1040
P154M*	-	-	-	-	68	1013	3	1084	50	1025	1	1076
P 1X	477	529	120	1126	403	422	109	934	536	411	103	1050
P102X	114	160	624	898	93	154	558	805	106	131	529	766
P106X	123	160	616	899	107	152	538	797	107	139	549	795
P120K**	770	202	92	1064	868	198	46	1112	828	188	52	1068
P138K	81	923	50	1054	82	1011	52	1145	76	1196	38	1310
P 40Q	27	701	3	731	29	900	2	931	39	1046	3	1088
P 18R	49	350	436	835	36	341	450	827	33	356	522	911
Total	1652	4202	1941	7795	2495	5482	1834	9811	2507	5759	1866	10132

Numbers of Puerto Rican, Negro and Other Pupils on Register in Eleven Elementary Schools Designated as More Effective Schools at Start of 1965-1966 School Year
Data for October 1964 and October 1965

School	October 1963				October 1964				October 1965			
	PR	N	O	Total	PR	N	O	Total	PR	N	O	Total
P 11M	-	-	-	-	372	40	180	592	412	77	290	779
P146M*	-	-	-	-	-	-	-	-	433	350	66	849
P168M	-	-	-	-	722	490	152	1364	505	274	47	826
P110X	-	-	-	-	510	571	22	1103	447	524	26	997
P 41K*	-	-	-	-	-	-	-	-	277	636	23	936
P 80K	-	-	-	-	346	202	477	1025	206	140	153	499
P165K	-	-	-	-	124	671	224	1019	109	433	178	720
P307K*	-	-	-	-	-	-	-	-	120	265	8	393
P 37Q	-	-	-	-	9	416	74	499	46	396	83	525
P183Q	-	-	-	-	126	456	401	983	125	417	340	882
P 31R***	-	-	-	-	34	258	249	541	42	294	246	582
Total	-	-	-	-	2243	3104	1779	7126	2700	3806	1460	7988

*Data unavailable; school not opened at time of special census.
**Formerly P24K
***Formerly P17R

Table 14

Per Cent of Puerto Rican, Negro, and Other Pupils on Register in Ten Elementary Schools Designated as More Effective Schools at Start of 1964-1965 School Year Data for October 1963, October 1964, and October 1965

				Per Cent of Total					
		October 1963			October 1964			October 1965	
School	PR	N	O	PR	N	O	PR	N	O
P 83M		*		69.9	23.5	6.6	70.4	23.1	6.5
P100M	0.9	99.1	0.0	1.1	98.9	0.0	0.9	98.9	0.2
P154M		*		6.2	93.5	0.3	4.8	95.2	0.0
P 1X	42.4	47.0	10.6	43.1	45.2	11.7	51.1	39.1	9.8
P102X	12.7	17.8	69.5	11.6	19.1	69.3	13.8	17.1	69.1
P106X	13.7	17.8	68.5	13.4	19.1	67.5	13.5	17.5	69.0
P120K**	72.4	19.0	8.6	78.1	17.8	4.1	77.6	17.6	4.8
P138K	7.7	87.6	4.7	7.2	88.3	4.5	5.9	91.2	2.9
P 40Q	3.7	95.9	0.4	3.1	96.7	0.2	3.6	96.2	0.2
P 18R	5.9	41.9	52.2	4.4	41.2	54.4	3.7	39.1	57.2
Average	21.2	53.9	24.9	25.4	55.9	18.7	24.7	56.8	18.4

Per Cent of Puerto Rican, Negro, and Other Pupils on Register in Eleven Elementary Schools Designated as More Effective Schools at Start of 1964-1965 School Year Data for October 1963, October 1964, and October 1965

P 11M	-	-	-	62.8	6.8	30.4	52.8	9.8	37.2
P146M	-	-	-		*		51.1	41.2	7.7
P168M	-	-	-	52.9	35.9	11.2	61.2	33.2	5.6
P110X	-	-	-	46.2	51.8	2.0	44.8	52.6	2.6
P 41K	-	-	-		*		29.6	67.9	2.5
P 80K	-	-	-	33.8	19.7	46.5	41.3	28.1	30.6
P165K	-	-	-	12.2	65.8	22.0	15.2	60.1	24.7
P307K	-	-	-		*		30.5	67.4	2.1
P 37Q	-	-	-	1.8	83.4	14.8	8.7	75.5	15.8
P183Q	-	-	-	12.8	46.4	40.8	14.2	47.3	38.5
P 31R***	-	-	-	6.3	47.7	46.0	7.3	50.5	42.2
Average	-	-	-	31.5	43.6	24.9	32.4	48.5	19.0

* Data unavailable; school not opened at time of special census.

** Formerly P24K

*** Formerly P17R

Summary

Selected statistics describing the program provide an analysis and summary of the changes in class size and pupil-teacher ratio; pupil costs, pupil attendance, pupil mobility, teacher mobility, and changes in ethnic composition of the MES program in schools. These data provide both background information about the schools and factors which must be considered in the assessment of the MES program.

The allocation of additional teaching positions to the MES schools brought average class size and pupil-teacher ratio in both years well below both city-wide elementary school figures and below comparable figures in the same schools prior to the start of the program. For all MES schools combined on October 1965, the average class size and pupil-teacher ratio were respectively 8.2 pupils and 10.8 pupils below the corresponding figures for city-wide elementary schools. Analysis of pupil-teacher ratio data for the 21 MES schools separately also show ratios considerably below city-wide figures.

A study of the per pupil costs of instruction proper for the 1965-1966 school year in the 21 MES schools and the 9 control schools involved in the evaluation produced some interesting findings. Instruction proper as generally defined refers to those expenditures for schools directly involved in the day-to-day instructional program and for this study includes all salaries paid to pedagogical and non-pedagogical personnel and expenditures for school supplies and equipment. The data showed that the per pupil costs of instruction proper in the combined 10 MES schools first established in September 1964 and the combined 11 MES schools first established in September 1965 were respectively $859.38 and $930.35. The analysis further showed that approximately 50 per cent of the total per pupil cost for the ten original schools and approximately 60 per cent of the total per pupil cost in the eleven newer schools was directly attributable to participation in the program. The impact of these expenditures is further emphasized when these data are compared with the 1964-1965 city-wide elementary school per pupil cost of instruction proper, which was $433.86. Similar data for the 9 control schools shows their instruction proper expenditures to be approximately one-half of those in the MES schools and nearly the same as the city-wide elementary cost figure.

Analysis of pupil attendance data in the 21 MES schools showed that there was practically no change in attendance rates after the start of the program as compared with rates immediately preceding. In all More Effective Schools and especially in the case of the 11 newer ones, it is too early to attempt to determine the impact of the program upon pupil attendance.

Analysis of data on pupil mobility in the 10 older and 11 newer More Effective Schools immediately before and following designation as MES showed that for the 10 older schools changes in mobility rate in the first year were generally very small. Five schools showed slight increases in rate over the previous year, but none exceeded four per cent. An almost equal number of the schools showed either increases or decreases in rate from the previous year. In the second year of the program, 8 of the original 10 schools showed declines in mobility rate from the previous year (1964-1965). For the newer MES schools established in September 1965, data are insufficient to provide information as to trends. These schools have not been in the program long enough to determine its effect upon pupil mobility. Moreover, four of the schools were opened and occupied for the first time in September, 1965 and for them no trend analysis is possible. Of the remaining seven schools, three showed increases in rate while four showed declines, the declines in three of the schools being considerable.

Teacher mobility data for the period October, 1965, through June, 1966, were also analyzed. Only 2.7 per cent of the teachers transferred from their MES school to non-MES schools and an additional .4 per cent transferred to other MES schools in the city. In the MES schools all teachers were given the option of transferring at the end of the school year. In non-MES schools only 5 per cent maximum can transfer each year. The teacher mobility rates for all reasons combined (maternity, sabbatical, transfer, etc.) in the MES and control schools were found to be respectively 6.2 and 6.4 per cent.

The data on the ethnic composition of pupil register in the More Effective Schools designated in September, 1964, showed that there was generally little change in the proportion of Negro, Puerto Rican, and Other pupils on register in the school years before and after the inauguration of the program. Similar before and after data for the MES schools first organized in September, 1965, showed approximately similar findings as those observed for the first group of MES schools. For those schools for which two-year trend data were available, it was found that there were some changes in the proportions of Negro, Puerto Rican and Other pupils from school to school, but the changes were generally small and showed no clear pattern for all schools combined.

CHAPTER 3

MEASURING PUPIL GROWTH IN READING AND ARITHMETIC IN THE MORE EFFECTIVE SCHOOLS

Purpose

This section of the report presents evidence on pupil growth in academic achievement in terms of standardized test results in reading and arithmetic. The major question for which data will be presented is, "What measurable effect does the More Effective Schools Program have on pupil growth in reading and arithmetic?" The Metropolitan Achievement Tests in reading and arithmetic were administered to the pupils in grades 2 through 6 in all participating More Effective Schools; in the selected control schools only reading test data were available. Alternate forms of the Metropolitan were given at initial and final test time. Specifically, the questions to be answered are as follows:

> What is the progress of the children in the MES program in reading and arithmetic over a one year period as compared to progress indicated in national norms?
>
> What is the progress of the children in the MES program in reading and arithmetic over a two year peiod as compared to progress indicated in national norms?
>
> How does the progress in reading achievement of the children in selected More Effective Schools compare with that of the children in selected control schools?

In addition, a separate study was undertaken utilizing the results of the word recognition subtest of the Gates Primary Reading Tests, which was given to all first grade pupils in Old and New MES schools.

For this sub-study, the question becomes: "What is the progress of first grade children in the MES program in word recognition over a five month period compared to progress indicated in national norms?"

Design of Study

Three populations of pupils participated in this study: pupils enrolled in the ten More Effective Schools inaugurated in the fall of 1964; pupils enrolled in the eleven More Effective Schools inaugurated in the fall of 1965; and pupils enrolled in the control schools.

Longitudinal studies of pupil achievement were made over a one year period and over a two year period, as the test data permitted. In the one year analysis no pupil was included who did not have a test score for both October 1965 and May 1966. In the two year analysis no pupil was included who did not have test scores for both October 1964 and May 1966.

In assessing the achievement of the pupils in the Old and New schools of the MES program, growth in grade scores on the Metropolitan Test was compared with normal growth over the periods involved. A second method of assessing the achievement of the MES pupils was to compare their gain in grade scores on the Metropolitan Test with the gain in grade scores achieved by a comparable group of pupils in control schools over the same period of instruction.

Results on the Reading Comprehension and Word Knowledge sections of the Metropolitan tests were so similar that, in the interests of brevity, only the Reading Comprehension results will be presented in this summary.

Reading Results of the One Year Study of Old MES Schools

In order to obtain a general appraisal of pupil academic achievement in the MES program, the results for the ten schools originally in the program from 1964 were combined; similarly the results by grade were combined for the eleven schools participating from 1965. Alternate forms of the Metropolitan Reading Achievement Tests were given to the pupils in grades 2 through 6. The initial testing was done in October, 1965, the first month of the grade, and the final testing occurred in May, 1966, the eighth month of the next grade.

The results in reading comprehension for grades 2 through 6 in terms of comparisons of obtained grade scores with grade norms at time of testing for all Old MES schools combined are presented in Table 15.

Table 15

Comparison of Grade Norms and Median Grade Scores
Metropolitan Reading Comprehension Tests
Initial and Final Testings All Old MES Schools

		Median Grade Score Achieved	Norm at Testing	Comparison with Norm	Net Change
Grade 2	Initial	1.9	2.1	-.2	+.2
N = 783	Final	2.8	2.8	0	
Grade 3	Initial	2.6	3.1	-.5	+.4
N = 784	Final	3.7	3.8	-.1	
Grade 4	Initial	3.4	4.1	-.7	+.1
N = 759	Final	4.2	4.8	-.6	
Grade 5	Initial	4.4	5.1	-.7	+.1
N = 735	Final	5.2	5.8	-.6	
Grade 6	Initial	5.1	6.1	-1.0	+.3
N = 567	Final	6.1	6.8	-.7	

Comparisons of grade scores achieved by the pupils in reading comprehension with the norms at initial and final testings reveals positive changes at each of the five grade levels ranging from +.1 to +.4 of a grade year. The comparisons of median grade scores achieved with norms indicated that the participating pupils were achieving more closely to the norms at final testings in May 1966 than at initial testings in October 1965. For example, at grade 2 the pupils were .2 of a school year below norm on the initial test but were at norm on the final test showing a net change and gain of .2 of a school year.

Table 16 presents comparisons of gains achieved in reading comprehension with gains expected in terms of elapsed time between initial and final testing.

Table 16

Grade Score Gains for Each Grade Compared with Elapsed Time At the Q_3, Median and Q_1, on the Metropolitan Reading Comprehension Tests for All Old MES Schools

		10-65 Testing	5-66 Testing	Gain	Elapsed School Years
	Q_3	2.3	3.6	1.3	
Grade 2	Median	1.9	2.8	.9	.7
N = 783	Q_1	1.5	2.1	.6	
	Q_3	3.4	4.5	1.1	
Grade 3	Median	2.6	3.7	1.1	.7
N = 784	Q_1	2.1	3.1	1.0	
	Q_3	4.1	5.4	1.3	
Grade 4	Median	3.4	4.2	.8	.7
N = 759	Q_1	2.9	3.5	.6	
	Q_3	5.4	6.8	1.4	
Grade 5	Median	4.4	5.2	.8	.7
N = 735	Q_1	3.7	4.2	.5	
	Q_3	6.4	8.8	2.4	
Grade 6	Median	5.1	6.1	1.0	.7
N = 567	Q_1	4.2	4.9	.7	

The comparisons of grade score gains with elapsed time shows achievement exceeded the gains to be expected on the basis of the elapsed period of instruction, .7 of a school year, except for the lower quartile, Q_1, which is the lowest achieving 25 per cent of pupils.

In the second grade, for example, the median gain was .9 of grade score attained during the .7 years which elapsed between the October 1965 and the May 1966 testings. At the Q_3 or 75th percentile, which is an index of the results for the higher achieving 25 per cent of pupils, the grade score gain of 1.3 school years was .6 of a school year (six school months) more than the .7 grade score to be expected on the basis of the norm. For the lower achieving group, indicated by means of the 25th percentile, Q_1, the gain of .6 of a school year was one school month behind the elapsed period of instruction.

In the remaining grades, the general trend of the results is parallel to that found for the second grade except in the case of the third grade. In the latter grade at all three points in the distribution of grade scores, namely, Q_1, Median and Q_3, the gain was 1 school year or more as compared to an expected normal gain of .7 of a school year.

Reading Results of the One Year Study of the New MES Schools

The results in reading comprehension for grades 2 through 6 for all New MES schools are presented in Table 17.

Table 17

Comparison of Grade Norms and Median Grade Scores
Metropolitan Reading Comprehension Tests
Initial and Final Testings All New MES Schools

		Median Grade Score Achieved	Norm at Testing	Comparison with Norm	Net Change
Grade 2	Initial	1.6	2.1	-.5	+.1
N = 853	Final	2.4	2.8	-.4	
Grade 3	Initial	2.4	3.1	-.7	+.3
N = 841	Final	3.4	3.8	-.4	
Grade 4	Initial	3.2	4.1	-.9	-.2
N = 793	Final	3.7	4.8	-1.1	
Grade 5	Initial	4.1	5.1	-1.0	-.3
N = 690	Final	4.5	5.8	-1.3	
Grade 6	Initial	4.6	6.1	-1.5	.00
N = 368	Final	5.3	6.8	-1.5	

A survey of the comparisons of grade scores achieved by the pupils in reading comprehension with the norms at initial and final testings reveals positive net changes only at the second and third grade levels. Negative net changes appeared at grades 4 and 5; at the sixth grade the net change was zero.

Table 18 presents the comparisons of Q_3, (upper 25 per cent) median (average) and Q_1 (lower 25 per cent) gains in grade scores achieved by the pupils with elapsed time between initial and final testing in reading comprehension for New MES schools.

Table 18

Grade Score Gains for Each Grade Compared with Elapsed Time At the Q_3, Median and Q_1 on the Metropolitan Reading Comprehension Tests for All New MES Schools

		10-65 Testing	5-66 Testing	Gain	Elapsed School Years
	Q_3	2.0	3.1	1.1	
Grade 2	Median	1.6	2.4	.8	.7
N = 853	Q_1	1.4	2.0	.6	
	Q_3	3.2	4.1	.9	
Grade 3	Median	2.4	3.4	1.0	.7
N = 841	Q_1	2.0	2.8	.8	
	Q_3	3.7	4.8	1.1	
Grade 4	Median	3.2	3.7	.5	.7
N = 793	Q_1	2.6	3.2	.6	
	Q_3	4.8	5.6	.8	
Grade 5	Median	4.1	4.5	.4	.7
N = 690	Q_1	3.5	3.8	.3	
	Q_3	5.8	7.2	1.4	
Grade 6	Median	4.6	5.3	.7	.7
N = 368	Q_1	3.9	4.4	.5	

An examination of the comparisons of grade score gains with elapsed time shows that, except at grades 4 and 5, gains occurred at the median and Q_3. These gains equal or exceed the gains to be expected on the basis of the elapsed period of instruction of .7 of a school year. At grades 4 and 5 the median gains were .5 and .4 of a school year. These are below the growth expected on the basis of national norms. At the Q_1, the 25th percentile level, the gains were all less than the expected .7 of a school year except in the case of the third grade where the gain was .8 of a school year.

Reading Results of the Two Year Study of Old MES Schools

The two-year study of reading achievement in the Old MES schools was important because it dealt with changes over a longer period than was possible in the case of the New MES schools. This longtudinal study included only those pupils who had reading grade scores for October 1964 and May 1966. Alternate forms of the Metropolitan Reading Achievement Test were utilized at initial and final test times. The elapsed time between testings was 1.7 school years. The results on the reading comprehension tests for grades 3 through 6 in the school year 1965-1966 will be presented.

Table 19, below, presents the comparisons of obtained grade scores and grade norms at time of testing at initial testing (October 1964) and final testing (May 1966) in reading comprehension for all Old MES schools.

Table 19

Comparison of Grade Norms and Median Grade Scores
Metropolitan Reading Comprehension Tests
Initial and Final Testing All Old MES Schools

		Median Grade Score Achieved	Norm at Testing	Comparison with Norm	Net Change
Grade 3	Initial	1.8	2.1	-.3	+.2
N = 784	Final	3.7	3.8	-.1	
Grade 4	Initial	2.7	3.1	-.4	-.2
N = 759	Final	4.2	4.8	-.6	
Grade 5	Initial	3.2	4.1	-.9	+.3
N = 735	Final	5.2	5.8	-.6	
Grade 6	Initial	4.2	5.1	-.9	+.2
N = 567	Final	6.1	6.8	-.7	

A survey of the comparisons of grade scores achieved by the pupils in reading comprehension with norms at initial and final testing reveals positive net changes at each grade level except in the case of grade four where the net change was -.2 of a school year. For example, in grade three, although both initial and final grade scores were below norm, the final score was only one month below norm, whereas the initial was three months below norm. This meant that the pupils had "made up" two of the lost months and had advanced 1.9 school years in the time that 1.7 school years advance would be expected.

Table 20, below, presents comparisons of gains achieved in reading comprehension with gains expected (in terms of elapsed time between initial and final testing) for all Old MES schools over the period from October 1964 to May 1966.

Table 20

Grade Score Gains for Each Grade Compared with Elapsed Time At Q_3, Median and Q_1 on the Metropolitan Reading Comprehension Tests for All Old MES Schools

		10-64 Testing	5-66 Testing	Gain	Elapsed School Years
	Q_3	2.1	4.6	2.5	
Grade 3	Median	1.8	3.7	1.9	1.7
N = 784	Q_1	1.5	3.1	1.6	
	Q_3	3.2	5.4	2.2	
Grade 4	Median	2.7	4.2	1.5	1.7
N = 759	Q_1	2.1	3.5	1.4	
	Q_3	3.9	6.8	2.9	
Grade 5	Median	3.2	5.2	2.0	1.7
N = 735	Q_1	2.7	4.2	1.5	
	Q_3	5.2	8.8	3.6	
Grade 6	Median	4.2	6.1	1.9	1.7
N = 567	Q_1	3.5	4.9	1.4	

A survey of the comparisons of grade score gains with elapsed time shows growth which exceed the gains to be expected on the basis of expected normal growth over the 1.7 school years of instructional time, except for the median at grade 4 and the lower quartiles at all grade levels. At grade 4 the gain between October 1964 and May 1966 was 1.5 school years or 2 school months behind the expected normal gain of 1.7 school year. In the high achieving pupil groups, those in Q_3, the gains exceed the normal gain of 1.7 by five school months or more. In the case of the sixth grade Q_3, the gain above normal expectancy was 1.9 school years.

Results of the One Year Study of Arithmetic Achievement in the Old MES Schools

Arithmetic progress in grades 4, 5 and 6 in Old MES schools was appraised through examination of quartile and median performance on sub-tests in problem solving and concepts of the Metropolitan Arithmetic Achievement Test administered in October 1965 and May 1966. Table 21 compares the median grade score achieved with the norm at initial and final testing, noting the net change in standing in relation to the norm.

Table 21

Comparison of Grade Norms and Median Grade Scores Obtained on Metropolitan Arithmetic Tests at Initial and Final Testings in All Old MES Schools

Problem Solving and Concepts

		Grade Score Achieved	Norm at Testing	Comparison With Norm	Net Change
Grade 4	Initial	3.4	4.2	-.8	+.5
N = 628	Final	4.5	4.8	-.3	
Grade 5	Initial	4.3	5.2	-.9	+.2
N = 656	Final	5.1	5.8	-.7	
Grade 6	Initial	5.2	6.2	-1.0	.0
N = 539	Final	5.8	6.8	-1.0	

Comparisons of grade scores achieved by the pupils in problem solving and concepts with norms at initial and final testing reveals positive net changes at each grade level except grade 6, where the net change was zero. The greatest net change, .5 of a school year, was made in the fourth grade.

In Table 22, the gains made in arithmetic achievement from initial to final testing are compared with gains to be expected for the elapsed time between testings.

Table 22

Grade Score Gains for Each Grade Compared with Elapsed Time at Q_3, Median, And Q_1 On Metropolitan Arithmetic Tests For All Old MES Schools

Problem Solving and Concepts

		10-65 Testing	5-66 Testing	Gain	Elapsed School Years
	Q_3	4.0	5.4	1.4	
Grade 4	Median	3.4	4.5	1.1	.6
N = 628	Q_1	2.8	3.8	1.0	
	Q_3	4.9	6.0	1.1	
Grade 5	Median	4.3	5.1	.8	.6
N = 656	Q_1	3.8	4.3	.5	
	Q_3	6.0	6.9	.9	
Grade 6	Median	5.2	5.8	.6	.6
N = 539	Q_1	4.5	4.8	.3	

In each grade the achievement gains at Q_3, the upper twenty-five per cent, exceeded the gain normally to be expected on the basis of the elapsed period of instruction. In grades 4 and 5, arithmetic achievement at the median also exceeded the normal gain. In grade 6, median achievement equalled the normal gain. Achievement at Q_1, the lower twenty-five per cent was above normal only in grade 4, the grade in which the greatest general growth was reflected.

Arithmetic Results of the One Year Study of the New MES Schools

The schools in which the MES program was begun in the Fall of 1965 were administered tests in problem solving and concepts in October 1965 and in May 1966 in grades 4, 5 and 6. Table 23 presents comparisons of obtained median grade scores and grade norms for all MES schools at initial and final testings, noting the net change in standing in relation to the norms.

Table 23

Comparison of Grade Norms and Median Grade Scores Obtained on Metropolitan Arithmetic Tests at Initial and Final Testings in All New MES Schools

Problem Solving and Concepts

		Grade Score Achieved	Norm at Testing	Comparison with Norm	Net Change
Grade 4 N = 741	Initial	3.1	4.2	-1.1	+.5
	Final	4.2	4.8	- .6	
Grade 5 N = 694	Initial	4.0	5.2	-1.2	-.1
	Final	4.5	5.8	-1.3	
Grade 6 N = 384	Initial	4.7	6.2	-1.5	.0
	Final	5.3	6.8	-1.5	

The results show positive net change only at the fourth grade. At the fifth and sixth grades the net changes were -.1 and zero respectively.

Table 24 presents the gains made from initial to final testing, compared to the gains to be expected on the basis of the elapsed time between testings.

Table 24

Grade Score Gains for Each Grade Compared with Elapsed Time at Q_3, Median, And Q_1 on Metropolitan Arithmetic Tests for All New MES Schools

Problem Solving and Concepts

		10-65 Testing	5-66 Testing	Gain	Elapsed School Years
Grade 4 N = 741	Q_3	3.8	5.1	1.3	.6
	Median	3.1	4.2	1.1	
	Q_1	2.6	3.6	1.0	
Grade 5 N = 694	Q_3	4.5	5.3	.8	.6
	Median	4.0	4.5	.5	
	Q_1	3.6	3.9	.3	
Grade 6 N = 384	Q_3	5.5	6.4	.9	.6
	Median	4.7	5.3	.6	
	Q_1	4.0	4.5	.5	

In each grade, the achievement gain exceeded the gain normally expected on the basis of the elapsed period of instruction at Q_3. At the median, achievement exceeded the expected gain in grade 4, equalled it in grade 6, and was .1 year below the expected gain in grade 5.

The achievement at Q_1 the lower twenty-five per cent, exceeded the expected gain in grade 4, but not in the other two grades.

Arithmetic Results of the Two Year Study in the Old MES Schools

The achievement test in problem solving and concepts was administered in October 1964 and May 1966 in the Old MES schools. Table 25 presents comparisons of obtained grade scores and grade norm at initial and final testing, noting the net change in standing in relation to the norm.

Table 25

Comparison of Grade Norms and Median Grade Scores Obtained on Metropolitan Arithmetic Tests at Initial and Final Testings in All Old MES Schools: Two Year Study

		Problem Solving and Concepts			
		Grade Score Achieved	Norm at Testing	Comparison with Norm	Net Change
Grade 4 N = 628	Initial	2.6	3.1	-.5	+.2
	Final	4.5	4.8	-.3	
Grade 5 N = 656	Initial	3.0	4.1	-1.1	+.4
	Final	5.1	5.8	- .7	
Grade 6 N = 539	Initial	4.1	5.1	-1.0	.0
	Final	5.8	6.8	-1.0	

The net changes reveal an improvement in the relationship of achievement to the norm in the fourth and fifth grades. At the sixth grade, the net change was zero.

Table 26 shows the gains made in arithmetic achievement from initial to final testing, compared to expected gains for the elapsed time between testings.

Table 26

Grade Score Gains for Each Grade Compared with Elapsed Time at Q_3, Median, and Q_1 on Metropolitan Arithmetic Tests for All Old MES Schools: Two Year Study

		Problem Solving and Concepts			
		10-64 Testing	5-66 Testing	Gain	Elapsed School Years
Grade 4 N = 628	Q_3	2.9	5.4	2.5	
	Median	2.6	4.5	1.9	1.7
	Q_1	2.3	3.8	1.5	
Grade 5 N = 656	Q_3	3.5	6.0	2.5	
	Median	3.0	5.1	2.1	1.7
	Q_1	2.8	4.3	1.5	
Grade 6 N = 539	Q_3	4.7	6.9	2.2	
	Median	4.1	5.8	1.7	1.7
	Q_1	3.5	4.8	1.3	

At Q_3 and at the median pupils in the Old MES schools made gains in arithmetic achievement which exceeded the 1.7 years elapsed time in every instance except the median at Grade 6. At Q_1, the lowest twenty-five per cent, actual gains were smaller than expected gains.

Results in Reading at the First Grade

In order to obtain objective data on pupil growth in the first grade, the word recognition subtest of the Gates Primary Reading Test was administered to all participating first grade classes in the Old and New MES schools. Form 1 of the test was given in February 1966 and Form 2 in June 1966; .5 of a school year elapsed between initial and final testings.

Median gains in terms of grade equivalents over the .5 school year period of instruction were computed for each school. Practically all schools showed gains at or more than .5 of a school year.

Table 27 shows the comparisons of obtained grade scores and grade norms at time of initial and final testing in word recognition for all Old and New MES schools.

Table 27

Comparison of Grade Norms and Median Grade Scores Obtained on the Gates Word Recognition Tests at Initial and Final Testings in Old and New MES Schools

Old MES Schools N = 1,168

	Median Grade Score Achieved	Norm at Testing	Comparison with Norm	Net Change
Initial	1.8	1.5	+.3	+.1
Final	2.4	2.0	+.4	
New MES Schools N = 999				
Initial	1.7	1.5	+.2	+.1
Final	2.3	2.0	+.3	

Comparisons of grade scores achieved with the norms at initial and final testings reveals favorable results. For the first grade pupils in the Old MES schools the median grade score achieved on the initial word recognition test was 1.8 which was .3 of a school year above the norm of 1.5 at time of testing; at final test time these same pupils achieved a grade score of 2.4 or .4 of a school year above the norm of 2.0. The net change or gain for these pupils from initial to final test was .1 of a school year.

The first grade pupils in the New MES Schools achieved gains above the norm of .2 and .3 of a school year at initial and final test times respectively. The net change for these pupils was also .1 of a school year.

Table 28 shows the gains made in word recognition in the first grade from initial to final testing as compared with gains to be expected on the basis of elapsed time between testings. Results are presented for both the Old and New MES Schools.

Table 28

Differences in Grade Equivalents on the Gates Word Recognition Test Given to First Grade Pupils in Old and New MES Schools in February and June 1966

	2-66 Testing	6-66 Testing	Gain	Elapsed School Years
Old MES Schools N = 1,168				
Q_3	2.2	2.9	.7	
Median	1.8	2.4	.6	.5
Q_1	1.5	2.0	.5	
New MES Schools N = 999				
Q_3	2.0	2.8	.8	
Median	1.7	2.3	.6	.5
Q_1	1.5	2.0	.5	

Comparison of grade scores in February and June 1966 in the Old and New MES schools reveals that the pupils made gains that exceeded normal growth over the elapsed period of school instruction. First grade pupils in Old MES schools showed .2 of a school year greater than normal gain at Q_3, .1 of a school year greater than normal gain at the median and exactly normal gain at Q_1. Similar results were obtained for the New MES schools.

One Year Study of Reading in MES and Control Schools

The evaluation of academic achievement in the More Effective Schools Program included a comparison of reading growth in MES and matched control schools.

The schools were matched on ethnic distribution for each school as of October 1964, and in April 1965, third grade reading scores. Table 29 presents the matching data.

Table 29

Matching Data on Ethnic Composition and Mean Third Grade Reading Score for MES and Control Schools

	OLD MES SCHOOLS					CONTROL SCHOOLS			
School	N%	PR%	O%	Rdg.	School	N%	PR%	O%	Rdg.
154 M	93.5	6.2	0.3	3.2	A	98.8	0.8	0.4	3.1
102 X	22.5	25.0	52.5	4.1	B	23.8	23.3	52.9	4.0
120 K	17.8	78.1	4.1	3.0	C	13.7	74.0	12.3	2.9
138 K	88.3	7.2	4.5	3.4	D	89.7	10.3	0.0	3.1
18 R	41.2	4.4	54.4	3.4	E	52.5	7.1	60.4	3.5
	NEW MES SCHOOLS					CONTROL SCHOOLS			
168 M	35.9	52.9	11.2	3.2	F	42.9	49.2	7.9	3.0
41 K	67.9	29.7	2.4	2.8	G	58.5	40.9	0.6	2.8
183 Q	46.4	12.8	40.8	3.2	H	37.1	19.4	43.5	3.1

Table 30 presents data on comparisons between Old MES and control pupils on median reading comprehension grade scores.

Table 30

Comparison of Median Grade Scores of Pupils in Selected Old MES Schools with Pupils in Selected Control Schools on the Metropolitan Reading Comprehension Tests

		N	10-65 Testing	5-66 Testing	Gain	Elapsed School Year
Grade 2	Experimental	409	1.9	2.7	.8	.7
	Control	645	1.8	2.5	.7	
Grade 3	Experimental	355	2.7	3.6	.9	.7
	Control	651	2.5	3.4	.9	
Grade 4	Experimental	349	3.5	4.1	.6	.7
	Control	602	3.3	4.1	.8	
Grade 5	Experimental	484	4.2	5.0	.8	.7
	Control	841	4.1	4.7	.6	
Grade 6	Experimental	282	5.2	6.2	1.0	.7
	Control	314	5.1	5.8	.7	

Table 30 reveals that in all but grade 4 the experimental pupils gained more than they might have been expected to gain on the basis of the norm in the time between initial and final testings. Additionally, in three of the five comparisons (Grades 2, 5 and 6) the experimental pupils made greater gains than did their control counterparts.

Table 31 presents data on comparisons between New MES and control pupils on median reading comprehension grade scores for grades 2 through 5. In two of the three experimental schools no sixth grade classes had been organized.

Table 31

Comparison of Median Grade Scores of Pupils in Selected New MES Schools with Pupils in Selected Control Schools on the Metropolitan Reading Comprehension Tests

		N	10-65 Testing	5-66 Testing	Gain	Elapsed School Year
Grade 2	Experimental	249	1.7	2.4	.7	.7
	Control	391	1.5	2.1	.6	
Grade 3	Experimental	257	2.3	3.4	1.1	.7
	Control	393	2.2	3.1	.9	
Grade 4	Experimental	267	3.1	3.7	.6	.7
	Control	337	3.0	3.6	.6	
Grade 5	Experimental	140	3.7	4.3	.6	.7
	Control	194	3.8	4.3	.5	

Table 31 reveals that the experimental pupils in Grades 2 and 3 made greater gains than they were expected to make, on the basis of the norms, and pupils in Grades 4 and 5 gained slightly less than expected. In three of the four grades tested (Grades 2, 3 and 5) the experimental pupils gained more than their control counterparts.

Summary

Reading Achievement: Net Change in Relation to the Norm

As one appraisal of pupil reading achievement, the standing in median grade equivalent scores in relation to the norm at both initial testing and final testing was computed for the several tests administered. The purpose of this appraisal was to determine whether and to what extent this standing improved on the final test as compared to the initial test.

In the one year study of Old MES schools all grades improved their status relative to the norm, as follows:

Grade	Net Change Grade Scores
2	+2 months
3	+4 months
4	+1 month
5	+1 month
6	+3 months

In the one year study of the New MES schools the net change in status relative to the norm was as follows:

Grade	Net Change Grade Scores
2	+1 month
3	+3 months
4	-2 months
5	-3 months
6	.0

In the two year study of the Old MES schools, a majority of the grades tested improved in status in relation to the norm:

Grade	Net Change Grade Scores
3	+2 months
4	-2 months
5	+3 months
6	+2 months

Reading Achievement: Gain in Grade Score in Relation to Elapsed Time

A second appraisal of reading achievement was based on a comparison of the improvement in grade score in relation to the length of time between initial and final testing. On the basis of the national norms, 10 months of gain in grade score are to be expected in each school year of instruction.

In the one year study in the Old MES schools, the gains made in every grade exceeded the expected gain, with very few exceptions (Table 16). In the New MES schools, the one year study revealed gains of a similar nature (Table 18).

The two year study of the Old MES schools, the results are equally favorable. Gains exceeded expected progress in all grades. Only at Q_1, the lowest level of achievement studied, was there a trend for the gains achieved to be at less than the expected levels. Even at this percentile the gains were close to expectations based on time elapsed between testings (Table 20).

Reading Achievement: First Grade Study

In the study of first grade results in the Old and New MES schools, the net change in pupil standing in relation to the norms was positive (Table 27). The total gain in grade score over the period between initial and final testing exceeded expected progress by as much as three months over a five month period (Table 28).

Arithmetic Achievement: Net Change in Relation to Norm

The one year study of the Old MES schools in arithmetic achievement, problem solving and concepts, gave the following positive results:

Grade	Net Change Grade Scores
4	+5 months
5	+2 months
6	0

For the New MES schools, the one year study returned the same results in grade 4 and 6, but a difference for grade 5.

Grade	Net Change Grade Scores
4	+5 months
5	-1 month
6	0

The two year study in arithmetic achievement involved only the Old MES schools. Net change in status in relation to the norm was as follows:

Grade	Net Change Grade Scores
4	+2 months
5	+4 months
6	0

Arithmetic Achievement: Gain in Grade Score in Relation to Elapsed Time

In the one year study of the Old MES schools, gains achieved exceeded gains expected on the basis of elapsed time, generally speaking (Table 22). For the New MES schools, the results were similar (Table 24).

In the two year study, the Old MES schools, the gains also exceeded expected progress at most points of comparison (Table 26).

Reading Achievement: Comparison with Control Schools

Both the Old and New MES schools were matched with selected control schools on the basis of ethnic composition and median reading achievement score attained on the third grade reading test administered in April 1965.

For both the Old and the New MES schools, the comparisons with the control schools were favorable to the MES schools. Except in one instance, grade 4, the MES grade groups grew as much as or more than the corresponding control grades. In approximately two-thirds of the grade comparisons, the MES group attained gains which exceeded those achieved by the corresponding control group.

CHAPTER 4

TWO LANGUAGE SKILLS PROJECTS

A prime target of the More Effective Schools Program is the development of language-based skills. This chapter describes two projects out of several that were undertaken in this area. The first is a survey of prekindergarten and kindergarten children completed with the aid of the Inventory of Oral Communication, an instrument developed to assess the language skills of three to six year old children. The second project was a speech improvement program administered by the Bureau of Speech Improvement.

I. Development of Language Skills of Prekindergarten and Kindergarten Children in the More Effective Schools Program

One of the first tasks of the Bureau of Educational Research was to aid in the development of an instrument which would help teachers to focus on the various aspects of oral communication both in their teaching and in the observation of the individual children in their classes. A survey of the available instruments revealed few that could be adapted to meet the needs of a regular classroom teacher who did not have special clinical training and would not have the opportunity to remove individual children from the classroom for special testing. The program staff felt that although such an inventory would not yield the precise measures of an objective test instrument administered by trained clinicians, nonetheless, it would help the teacher to focus on communication in her own teaching, it would pinpoint specific problems in individual students and it would yield an indication of change over the period of a school year.

Pertinent literature was surveyed and numerous meetings were held with early childhood teachers and supervisors, project administrators, and the research staff. The result was an instrument that has been administered and revised several times during the past two years. The Inventories were placed in the Individual Record Folder for each child and later analyzed by the research staff.

The Inventory of Oral Communication is composed of two major sections: Expressive Ability and Receptive Understanding. The first section contains 24 items grouped under the following headings: Language Structure, Speech Production, Naming, and Linguistic Skills. The 11 items of the second section are grouped under two headings: Auditory Discrimination and Listening Comprehension. All items are rated according to a five-point scale which indicates at its lowest point that the behavior in question is shown "never or almost never" and at its highest point that the behavior is shown "always or almost always."[1]

During the 1965-66 school year, the Inventory was administered in both fall and spring to 2,670 children, 1,920 of whom were in kindergarten classes and 750 of whom were in prekindergarten classes. The analysis of the data was concerned with the percentage of children placed within the two categories combined which represent the higher stages of language development. The aim was to determine whether the percentages of children in these two categories changed from fall to spring for each item. Significance of differences between percentages was determined by the use of Daniel's Tables.[2]

The results indicated that the teachers found improvement for the kindergarten children in all items except two. These were "Uses baby talk" and "Employs short phrases." While the teachers found the prekindergarten children to have shown significant progress for all items, these same two items showed the smallest percentage of improvement. Both groups showed greatest improvement in "Refers to familiar children in his class by name." The other items relating to naming 'using name of children, places, things) also showed high improvement.

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[1] The Inventory is at present undergoing a final revision.

[2] Daniel, Cuthbert; Statistically Significant Differences in Observed Per Cents: J. App. Psych., Vol. 24, No. 6, Dec. 1940, pp. 826-830.

II. The Speech Improvement Program of the Bureau of Speech Improvement In the More Effective Schools

Since the inception of the More Effective Schools program, the Bureau of Speech Improvement has sent one speech teacher to each of the More Effective Schools to conduct speech improvement classes. (Each school also has an additional speech teacher who carries out the clinical speech program.) The teachers were chosen for their interest and skills in the various activities comprising classroom instruction in speech improvement.

During the 1965-66 school year the Bureau of Educational Research assisted in the administration of the Bureau of Speech Improvement Speech Checklist for Oral Communication Skills. The test was given to the children in the More Effective Schools classes taught by the speech teachers in the special language arts program. The Bureau of Educational Research also developed an evaluation questionnaire which was administered to the speech teachers.

A. Description of the Speech Improvement Program

Each teacher was assigned to only one school and taught each of 20 classes one period per week. The classes ranged from grades 1 through 6, with a concentration in some schools at the lower levels. It was originally intended that the classroom teacher be present during all speech improvement classes, but this was not always carried out, as in many schools a portion of the speech teacher's assignments included coverage of classes, in which cases the classroom teacher was not in the room.

The Program's goals were focused on the following areas: Listening habits; Attitude toward oral expression; Oral language development; Audibility and voice quality; Articulation and pronunciation. The program was both developmental and re-educational. It aimed first, to provide stimulation and practice in the various language communication skills as children became ready for them, and second, to correct problems that had arisen prior to specialized instruction in language skills.

Some of the approaches used by the teachers to meet the developmental and re-educational goals of the program were:

1. Creative experiences: creative dramatics, choral speaking, story telling, role playing
2. Other group activities: group discussions, oral reports
3. Practice in speech skills: pronunciation of specific words and sounds, practice with phrasing and intonation, audibility of voice, etc.

B. Speech Test

During the 1964-65 school year the speech improvement teachers assigned to the More Effective Schools Program designed the BSI Speech Checklist for Oral

Communication Skills. This checklist was filled out for a sample of the children in the special program during the 1965-66 school year. The checklist revealed the existence of problems in the following areas: attitudes, rate of speech (rapid, slow, hesitant), vocabulary, organization, foreign accent, dialect, audibility and vocal quality.

In a sample of 36 classes from nine schools, checklists were filled out during both the fall and the spring of 1965-66. The greater concentration of children tested falls in the lower grades. This is indicative of the distribution of classes in the program as a whole. The checklist was not designed to indicate the severity of the problems checked in the fall, nor in the spring was there any intent that there be a record kept of the exact extent of improvements made by the children. The checklist reveals, then, the number of problem areas noted in the fall, and in the spring, whether or not there were improvements in these areas.

Table 32 presents the means for the 36 classes combined indicating improvement in problem areas over the period of the school year.

Table 32

Mean Number of Problem Areas During Fall and Spring
and Per Cent of Improvement During the 1965-66 School Year
for Thirty-Six Classes Combined

	Mean No. of problem areas per class in fall	Mean No. of problem areas per class in spring	Per Cent of problem areas improved
Attitudes			
Withdrawn	2.9	.9	68.07 %
Uncooperative	1.5	.5	66.7 %
Rate			
Rapid	1.1	.4	63.6 %
Slow	1.4	1.1	21.4 %
Hesitant	2.1	1.1	47.6 %
Language			
Vocabulary	3.3	1.5	54.5 %
Organization	2.9	1.4	51.7 %
Foreign Accent	3.7	2.0	45.9 %
Dialect	6.2	3.6	41.9 %
Voice			
Inaudibility	6.8	2.2	67.6 %
Poor Quality	2.7	1.5	44.4 %

The greatest mean number of problem areas per class noted in the fall were voice inaudibility and dialect. The lowest number noted were rapid rate and slow rate.

In the spring the highest problem areas were the same except that their positions were reversed: dialect and inaudibility. The lowest problem areas were rapid rate and uncooperative attitude. The greatest per cent of improvement was shown in withdrawn attitude, inaudibility, uncooperative attitude, and rapid rate. The lowest per cent of improvement was shown in slow rate.

6

Discussion of the Results

The fall checklist gave the speech teachers involved an indication of the problem areas that needed the greatest amount of work in their classes. It is important, then, to note that the second highest per cent of improvement is shown in audibility, which was the highest fall problem area.

The results also indicate that dialect, which was the second highest fall problem area, had the third lowest per cent of improvement. This does not necessarily mean that the teachers did not do as much work on dialect as they did on audibility, but rather that improvement in dialect may be more difficult to attain than improvement in audibility. In addition, the two areas showing greatest per cent of improvement (withdrawn attitude, inaudibility) are most likely somewhat dependent on degree of comfort within the class - i.e., familiarity with speech teacher, other children in class, etc. As the year progresses, many children might naturally become more comfortable within the speech class, and problems with withdrawn attitude and inaudibile voice in the testing situation might yield quite readily. Problems with dialect, foreign accent and slow rate of speech are probably not dependent on the same classroom factors, and so improvement in degree of comfort and familiarity would not to the same extent influence these particular problem areas.

C. Teacher Evaluation Questionnaire

All speech teachers in the speech improvement program were given evaluation questionnaires which they were asked to fill in and forward to the Bureau of Educational Research. Fourteen out of the total group of 20 questionnaires were returned. The results are presented in Table 33.

Summary and Discussion of Responses

The majority of the speech teachers felt that it is most important to teach communication skills at the very early grade levels. The next largest group felt that grades 3-4 were the crucial grade levels. The opinion of teachers as to the importance of speech improvement instruction in the early grades has been echoed in all similar programs conducted by the Bureau of Speech Improvement. Several teachers commented that such instruction can effect change before bad habits become ingrained. Several other teachers mentioned the tie-in of effective speech with the development of good reading ability.

The majority of the teachers felt that clinical speech remediation should "occasionally" be included as a part of the language communication classes. They commented that since clinical problems show themselves in the classes, it is impossible to ignore them. Several teachers stressed the importance of working with the clinical speech teacher assigned to the school.

A large majority of the teachers circled the rating which indicated that the classroom teacher was somewhat helpful to the speech teacher. The situation in the majority of schools was that the teachers varied considerably in the extent to which they participated in the speech improvement classes.

The large majority of the teachers found that there were "some differences" between their preconceptions and their actual experiences in the program. There was no unanimity of comments regarding the ways in which actual experience in the program differed from preconceptions.

Table 33

Speech Teacher Evaluation of MES Language Arts Program
Responses to Questionnaire (N = 14)

1. At which levels do you feel it is most important to teach language communication skills?	(grades 1-2) 8	(grades 3-4) 4	(grades 5-6) 1		
2. To what extent do you think clinical speech remediation should be included as a part of language communication classes?	(never) 0	(Inter.*) 1	(occasionally) 8	(Inter.*) 3	(always) 1
3. How effective was the involvement of the classroom teacher in the teaching process?	(not at all effective-actually detrimental) 0	(Inter.) 2	(neither helped nor hindered) 3	(Inter.) 9	(extremely effective) 0
4. To what extent did your actual experience as a teacher in the program agree with your expectations as they developed during your training for the program?	(complete agreement) 0	(Inter.) 3	(some differences) 8	(Inter.) 1	(many strong differences) 2
5. Acceptance by other teachers at school	(felt isolated, separated from other staff members) 0	(Inter.) 0	(accepted by some teachers, but felt somewhat separate from staff) 1	(Inter.) 6	(completely accepted by other staff members) 7
6. Do you feel that there were changes that took place in the language skills of the children you taught?	(no, not any) 0	(Inter.) 0	(some change) 6	(Inter.) 4	(a great deal of change) 4
7. Supervision	(not at all helpful) 0	(Inter.) 0	(neither helpful nor detrimental) 4	(Inter.) 2	(very helpful) 6
8. To what extent were the teacher training goals of the speech and language development program implemented?	(not at all) 0	(Inter.) 4	(somewhat) 7	(Inter.) 2	(excellently) 1

* The "intermediate" caption signifies a rating between the ratings on either side of it, e.g., between "never" and "occasionally" or between "occasionally" and "always" in question 2.

None of the teachers chose the two negative ratings regarding the extent of their acceptance by the other teachers at their school. The overwhelming majority chose one of the two higher ratings. Most of the teachers felt that they did not have much difficulty being "socially" accepted by the other teachers. However, several commented that their professional role had not been well defined to the other teachers, who were therefore unsure of how to relate to them in their working capacity.

The majority of the teachers felt there was some change in the speech improvement of the children. None of the teachers reported no change. Comments centered on positive changes in students' attitude toward effective speech. Several teachers mentioned the importance of follow-up by classroom teachers.

The responses regarding supervision ranged from "not at all helpful" at one end of the scale to "very helpful" at the other. The comments revealed some difficulty with supervision. The Bureau of Speech Improvement was not budgeted with funds for a project supervisor. There is one regular staff supervisor who administers this special More Effective Schools speech program. However, it was necessary that there be several speech supervisors, not otherwise connected with this program, to do the on-the-job supervision of the individual teachers. Some of the teachers felt their individual supervisors were not well enough acquainted with the goals of this particular program. In addition, the speech teachers are subject to the supervision of the principal and other administrative personnel of the school to which they are attached. This often results in a confusion of directives. Some of the teachers felt that their principal did not understand the aims of the program and the role of the speech teacher within it. A number mentioned that they had been given coverage of classes, reading classes, and supplementary duties which did not allow them to fulfill their roles in the speech program. There were a number of very favorable comments regarding the support given by the project administrator.

Half the respondents found the teacher training goals to be "somewhat" implemented. Only one found the goals "excellently" implemented. The speech teachers mentioned most frequently the difficulty of training teachers when the classroom teachers were not in the room during speech classes.

The suggestions for operation of the program next year (1966-67) centered largely around the necessity of clarification for the principals and school staff of the role of the speech teacher in the special speech program.

D. Plans for Future Programs

It is the feeling of speech teachers and supervisors that the speech improvement program, as developed in the past two years, is most successful at the younger grade levels. Accordingly, it has been decided that future programs will concentrate on grades 2 and 3.

There will be an attempt made to eliminate coverage classes from the speech teachers' schedules, since during such classes the classroom teacher is not present in the classroom and so cannot learn effective speech teaching techniques or assist the speech teacher.

Descriptions of various activities which were part of the speech improvement program will be prepared with an eye toward future publication in professional journals.

CHAPTER 5

REACTIONS OF ADMINISTRATORS, TEACHERS, AND PARENTS

This chapter presents the reactions of district superintendents, school principals, teachers, and parents to various aspects of the MES program. The findings were obtained from questionnaires sent to these persons in the spring of 1966, the second year of the program. They provide comments on such areas as problems resulting from the program, the effectiveness of certain aspects of the program, benefits resulting from it, and the impact of the program on the individual school itself. The opinions and reactions are presented separately for each group responding.

Reactions of Assistant Superintendents

Reactions were sought from the nineteen Assistant Superintendents in whose districts More Effective Schools were located. To this end, questionnaires were sent to them in May, 1966. The analysis of their reactions is presented in the following pages. The questionnaire asked the respondents to indicate their judgments with respect to the results of the program in their districts in terms of: problems attributable to the program; the effectiveness of certain aspects; changes in specific areas; the important benefits and the desirability of continuing the experiment.

Problems Reported. Many of the problems reported by the Assistant Superintendents were those peculiar to their respective districts rather than those attributable to the MES Program. The following are certainly pertinent:

> Parent groups for non-MES schools expressed strong regret that their schools had not been included in the program.
>
> Staff members of the non-MES schools regretted not having the advantages enjoyed by those in the MES schools.
>
> The program contributed to a shortage of teachers in the non-MES schools of the district.

Evaluation of Certain Aspects of the Program. The superintendents reported most aspects of the program as effective, particularly the following: reduction of class size; a preparation period each day for the teacher; expanded clinical and guidance services; additional supervisory staff; and pre-kindergarten classes. Some reservations were expressed concerning two aspects: the cluster teacher and the heterogenous grouping of pupils. The figures on the superintendents' judgments are given in Table 34, on the following page.

Table 34

Assistant Superintendents' Ratings of the Effectiveness of Six Aspects of the MES Program

	Per Cents Giving Each Rating			
Items	Not Effective	Somewhat Effective	Very Effective	No Response
Reduction of class size	8.3	16.7	75.0	0.0
Preparation period each day for teachers	16.7	25.0	58.3	0.0
Cluster teacher	0.0	58.3	41.7	0.0
Expanded clinical services	12.5	16.7	62.5	8.3
Heterogenous grouping	16.7	58.3	8.3	16.7
Additional supervisory staff	8.3	16.7	75.0	0.0
Pre-Kindergarten classes	4.2	0.0	87.5	8.3

Changes in Specific Areas. Superintendents were questioned about the nature of the changes in specific areas brought about by the program. The majority of the respondents (three-fourths) expressed the opinion that the program had had positive effects in each of these areas: the efficiency of the schools' organization, the role of the principal and the training of teachers and other personnel. The figures are given in Table 35.

Table 35

Assistant Superintendents' Opinions about the Nature of the Changes Resulting from the MES Program in Three Areas

Items	Negative Change	No Change	Positive Change	No Response
Efficiency of School Organization	0.0	8.3	75.0	16.7
Role of the Principal	8.3	0.0	75.0	16.7
Training of teachers and other personnel	0.0	16.7	75.0	8.3

Benefits Resulting from the Program. The benefits resulting from the program as defined by the superintendents were as follows:

Reduced class size
Improved teacher morale
Additional supervisory personnel
More individualized instruction
Additional services
Improved guidance program
Improved teacher planning
Improved community relations

Desirability of Continuing the Experiment. Approximately 85 per cent of the respondents expressed the opinion that the experiment should continue, but over half of this group added the proviso that small modifications should be made, and 29.2 per cent recommended considerable modifications. Only the following changes, however, were mentioned by two or more respondents:

Reduce the number of additional personnel
Give other schools some of the MES services

Reaction of Principals

This section presents data on the reactions of the school principals to the MES program; these data were obtained from questionnaires sent to the 21 principals of the More Effective Schools in April, 1966. The questionnaire consisted of four basic questions, two of which were subdivided into a number of separate items. In Question 1, the principals were asked to evaluate the effectiveness of the differences between the More Effective Schools and regular elementary schools by rating ten specific items in one of the following three ways: not at all effective, somewhat effective, very effective. In Question 2, the principals were asked to assess the impact of MES program in such areas as relation of school to community, parent involvement, teacher training and morale, principal's role, quality of instruction, and the like by indicating whether the program had a negative effect, no effect, or a positive effect. Question 3 asked the principals to list, in order of importance, what they felt were the most important benefits of the program. Question 4 asked whether the principals were in favor of the program's being: continued essentially unchanged, modified somewhat, considerably changed, discontinued.

Data on Question 1. With regard to the effectiveness of the MES program in comparison with the regular elementary program, the majority of the principals agreed that the program was very effective in such administrative areas as the increased number of teachers, the assignment of an administrative assistant, the increased number of assistant principals, and such other areas as the reduction of class size, the preparation period each day for teachers, and the use of cluster teachers. At least 90 per cent of the respondents felt that the administrative assistant, the additional assistant principals and the reduction of class size were very effective. However, only 25 per cent of the principals felt that the heterogenous grouping of pupils was very effective. Data on the responses are presented in Table 36.

Table 36

Principals' Ratings of the Effectiveness of Aspects of the MES program as Compared to the Regular Elementary Program

	Per Cents of Respondents Giving Each Rating		
Items	Not Effective	Somewhat Effective	Very Effective
Increased number of teachers	0	15	80
Administrative assistant	0	5	95
Relationship to assistant superintendents	0	45	50
Increased number of assistant principals	0	10	90
Heterogenous grouping of pupils	10	65	25
Reduction of class size	0	5	95
Preparation period each day for teachers	0	35	65
Cluster teachers	0	40	60
Expanded clinical services	10	45	45
Other	0	0	0

Data on Question 2. In assessing the impact of the MES program in a number of specified areas (see Table 37, below), the majority of the principals reported that the program exerted a positive effect with respect to nine of the ten listed items, particularly in the following areas: the relation of school to community, the quality of instruction, and teacher training and morale. Details are shown in Table 37.

Table 37

Principals' Responses as to the Impact of the MES Program on Ten Areas of School Administration

	Per Cent of Respondents Living Each Response			
Items	Negative Effect	No Effect	Positive Effect	No Responses
Relation of school to community	0	0	100	0
Relation of school to neighboring schools	25	55	15	5
Parent involvement	0	30	65	5
Teacher training	0	15	80	5
Teacher morale	0	5	90	5
School organization	10	20	60	10.
Your role as principal	20	0	60	20
Your contact with teacher	25	5	60	10
Your contact with children	10	20	60	10
Quality of instruction	0	5	95	0

Benefits of the Program. The principals mentioned many benefits of the program; most frequently the following:

Reduced class size
More individualized instruction for pupils
Improved teacher morale
Increased guidance services
Teacher training programs
Increased teacher planning
Increased motivation among pupils
Improved pupil achievement
Additional instructional supplies
OTP's in art, music, health education, and science

It is notable that many of the benefits mentioned by the principals are the same as those mentioned by the assistant superintendents.

Judgments as to Continuation of the MES Program. All the principals responding expressed the desire that the program should continue. Of these, 55 per cent suggested modifications of the program, the modifications most frequently suggested being the following:

More homogenous grouping
Expansion of MES services to other schools
Principals should be permitted to make more of the decisions involved in utilizing personnel in their schools, including OTP's
Fewer OTP positions

Teachers' Reactions

The reactions of teachers to the MES Program were obtained from questionnaire responses received from 900 teachers participating in the program. Of this total, half were teachers who served in the program since September, 1964, and half those who had served only since September, 1965. The data were analysed separately for each of these groups. Certain important findings are presented in Tables 38 and 39, pages 62 and 63.

The questionnaires which were sent to the teachers in April, 1966, consisted of six basic questions. The respondents were asked to give their reactions to such results of the program as decreased class size and heterogenous grouping, and to the use of such personnel as OTP's (Other Teaching Position), cluster teachers, guidance and clinical personnel. They were asked to assess the effect of the program on staff morale, cooperation among teachers, parent involvement with the school, and the quality of instruction. Each teacher was requested to tell the two features of the program that helped her most in the achievement of her own classroom goals, and also, to give her opinion as to whether the program should be continued. Space was provided for additional comments.

Analysis of the data for the two categories of teachers responding provides some noteworthy findings. Approximately 85 per cent of the teachers in both the newer and older MES schools felt that class size was just right; with regard to classroom grouping only 25 per cent of the teachers in the older schools and 22 per cent of those in the newer schools felt that heterogenous grouping should be retained; at least 75 per cent of the respondents felt that this aspect of the program should either be eliminated or modified.

Data on teacher reaction to the use of personnel in the program and to the impact and effect of the program in certain school areas are presented in Tables 38 and 39, pages 62 and 63. The majority of the teachers in both the newer and older MES schools found that the program either functioned smoothly or was satisfactory with some changes needed with regard to the use of the OTP's, the cluster teacher, and clinical and guidance services. The teachers were least satisfied with the way the clinical services were used, as was shown by the fact that more than 30 per cent of them in both the new and old MES categories indicated that this aspect either needed major reorganization or was less than satisfactory. (Table 38).

In assessing the effect of the MES program upon the school itself, the great majority of the teachers in both the old and new MES categories agreed that it had either had a strong positive effect or a somewhat positive effect upon general staff morale, the quality of instruction, cooperation with teachers, and parent involvement in the school (Table 2).

The teachers were asked to indicate also the two features of the program which they felt were most important to them in helping their pupils to learn as well as their potential would allow. The three most frequently mentioned features in order of frequency were: small class size, the daily preparation period for teachers, and the use of the cluster teacher. At least 95 per cent of the teachers in both the newer and older More Effective Schools indicated small class size, while approximately 45 per cent of both teacher groups mentioned the daily preparation period for teachers.

Most of the teachers agreed that the program should be continued. More than 95 per cent of those in the newer More Effective Schools and 92 per cent of those in the older ones indicated that the program should either continue unchanged or continue with some modification.

Table 38

Teachers' Ratings of the Usefulness
of Personnel Resources in the MES Program

Item	(1) Functioning Smoothly	(2) Between 1 and 3	(3) Satisfactory, Some changes needed	(4) Between 3 and 5	(5) Needs Major Reorganization
	MES Schools Established in September 1965 Per Cent of Respondents Giving Each Rating				
Cluster teaching arrangements	34	26	27	7	5
OTP's	29	21	34	9	7
Clinical services	24	19	26	18	13
Other	49	24	15	8	4
	MES Schools Established in September 1964 Per Cent of Respondents Giving Each Rating				
Cluster teaching arrangements	40	23	22	8	7
OTP's	33	25	24	9	9
Clinical services	28	18	22	17	15
Other	41	22	18	7	11

Table 39

Teachers' Opinions as to the Impact of the MES Program on Certain Aspects of the School Program

Items	MES Schools Established in September 1965 Per Cent of Respondents Giving Each Opinion					MES Schools Established in September 1964 Per Cent of Respondents Giving Each Opinion				
	Strong Negative Effect (1)	Somewhat Negative Effect (2)	NO Effect (3)	Somewhat Positive Effect (4)	Strong Positive Effect (5)	Strong Negative Effect (1)	Somewhat Negative Effect (2)	No Effect (3)	Somewhat Positive Effect (4)	Strong Positive Effect (5)
General staff morale	4	12	11	39	34	4	14	9	31	42
Cooperation between teachers	4	11	9	41	35	3	9	10	37	42
Parent involvement with school	4	6	26	46	18	1	6	21	45	27
Quality of instruction	3	3	7	39	48	3	6	6	27	58

Reactions of Parents

Parents' reactions to the MES program were obtained from questionnaires sent to the parents of approximately 2,500 pupils in the program. About half of the questionnaires were sent to parents of pre-kindergarten and kindergarten children, while the rest were sent to parents of pupils in the third and fifth grades. The questionnaires were distributed during May, 1966; by June 30, 1966, 835 responses had been received. This report is a summary of data from the 835 questionnaires returned.

The questionnaires sent to the parents consisted of the following three items and were written in both English and Spanish:

1. How helpful was the More Effective Schools program to your child?

    Very helpful________ _______
    Helpful______________________
    Needs Improvement___________
    Not helpful_________________

2. Please write the ways in which the program helped your child.

3. What don't you like about the "More Effective Schools" program?

The responses to item 1 showed that 62 per cent of the parents reported that the MES program was "very helpful," while 24 per cent indicated that the program was "helpful." Only one per cent of the respondents said it was "not helpful," and 2 per cent did not respond to this item at all. Seventy-one per cent of the parents responded to item 2 and indicated many ways in which they felt the program had helped their children. The following are the five most frequently mentioned benefits, presented in order of frequency:

1. Improved reading (19 per cent)
2. Improved relationships with other children (11 per cent)
3. Smaller classes (9 per cent)
4. Improved mathematics instruction (9 per cent)
5. Improved verbal communication (7 per cent)

More than 80 per cent of the respondents did not respond to Item 3, and it may be assumed that these parents had no criticisms of the program. The remaining parents offered a wide variety of criticisms, though no single one was cited by a large proportion of those responding. Some of the criticisms offered included: unhappiness with heterogenous grouping, dissatisfaction with mathematics curriculum, lack of organized IGC classes, and shifting of teachers.

Summary

Analysis of the reactions of district superintendents, principals, teachers and parents involved in the MES program was obtained from questionnaire responses in the spring of 1966. The data showed that district superintendents in whose districts MES schools were located found that the chief problem encountered was the resentment of parent groups from non-MES schools that their schools were not included in the program. They reported that such aspects of the program as reduced class size and the establishment of pre-kindergarten classes were very effective. They indicated that teacher morale was high and that more individualized instruction was possible because of lower class size and the assignment of additional personnel. Most of the superintendents wanted the program to continue, although they expressed reservations about heterogenous grouping and the use of the cluster teacher. The reactions of the school principals were very similar to those of the district superintendents. This group also mentioned reduced class size and more opportunity for individualized instruction as the chief benefits of the program. All the principals agreed that the program should continue, though 55 per cent of them suggested some modification. The main changes recommended were a reduction in the number of additional school personnel and provision of MES services in other schools.

The 900 teachers in the 21 More Effective Schools reported that much reduced class size and the daily preparation period were the most important features of the program in helping pupils learn. They also generally indicated that the schools made generally good use of the additional OTP's, the cluster teacher, and guidance personnel and that the program had had a positive effect upon staff morale, the quality of instruction, cooperation between teachers, and parent involvement in the school. The parent reactions to the program were generally in accord with those of the administrators and teachers. Approximately 90 per cent of the parents responding stated that the program was either "very helpful" or "helpful," and that improved reading on the pupil's part was the outstanding benefit resulting from the program. Other areas praised by the parents were improved social behavior, a broader educational program, increased pupil motivation, and improved scholastic achievement.

Analysis of all questionnaires reveals the significance of reduced class size as one aspect of the More Effective Schools Program. The MES small class size received overwhelmingly favorable reactions, by administrators, teachers and parents whether they were asked to evaluate the effectiveness of this specific aspect, or whether they were asked which aspects of the program had greatest influence on school functioning and academic and social progress of the children.

Chapter 6

SUMMARY OF FINDINGS

Educators today face social, economic and educational problems of gigantic proportions in educating children from disadvantaged urban areas. Many of these children do not achieve successfully in elementary school and have difficulty with secondary school educational requirements, then leave school at an early age. The More Effective Schools were based on a design recommended by the Joint Planning Committee for More Effective Schools to provide one solution to this problem. The plan developed by the Committee had as its objective the creation of an educational facility which would allow these children to realize their academic and social potentials - - at least in the school environment, which is the domain of education.

The Office of Educational Research concentrated on selected specific research areas for the first two years of the evaluation of the MES program. The areas of concentration were as follows:

1. An evaluation of the extent to which each objective of the program defined by the Planning Committee was implemented in the More Effective Schools program.
2. A presentation of the statistics describing significant administrative aspects of the program.
3. An analysis of the results of standardized achievement tests in reading and arithmetic administered to children in the MES program and children in selected control schools.
4. An investigation of two MES projects in the area of language skills:
    a. A survey of oral communication skills of prekindergarten and kindergarten children.
    b. A description of a special speech improvement program.
5. An analysis of the reactions to the program of the participating district superintendents, principals, teachers, and parents.

Implementation of MES Objectives

The report of the Joint Planning Committee for More Effective Schools listed twenty policy statements which, upon implementation, were to comprise the distinguishing features of the More Effective Schools Program. The statements were subsumed under the following headings: pupils and curriculum, personnel, school plant and organization, and community relations. A study was made of the extent to which each of the policy statements was actually implemented in the functioning program.

It was concluded that the more Effective Schools Program as it operated was not vastly different from the Program as it was envisioned. Some provisions became actualities in their entirety. These pertained to class size, heterogeneous ability grouping, teaching materials, cooperation with local colleges, audio-visual techniques, teacher specialists, staff recruitment, teacher preparation periods, and the use of community relations experts. The remaining provisions received only partial implementation. Only half of the schools were integrated; there were many classes for four-year olds, but few for three-year olds; all schools used team teaching, but only one used the non-graded bloc method; the pupil personnel team contained appropriate personnel for handling emotional and social problems, but did not include sufficient medical personnel for physical problems; some courses were offered to teachers and some scholarships were available, but financing did not come from the Board of Education; teachers did receive a daily preparation period but not complete relief from all non-teaching duties; the school plant was used fully during the school day and the summer months but not during the weekends. However, there were no recommendations that were not at least partially implemented.

Selected Statistics Describing the Program

Analysis of the data on the ethnic composition of pupil enrollment before and after the 21 schools were designated More Effective Schools shows that there was relatively little change in the proportion of Negro, Puerto Rican, and Other pupils on register before and after the schools became involved in the program. Ten of the schools could be considered integrated to a reasonable degree.

A study was made of the cost of instruction per pupil during the 1965-1966 school year in the 21 MES schools and the 9 control schools. For this study the cost of instruction was considered to include both the salaries paid to pedagogical and non-pedagogical personnel and also the expenditures for school supplies and equipment. The data show that the cost of instruction per pupil in the 10 MES schools established in September, 1964 was $859.38; the cost of the 11 MES schools established in September, 1965 was $930.35. These amounts greatly exceeded the cost of instruction per pupil in other city elementary schools which was $433.86 for the 1964-1965 school year. Cost data for the 9 control schools showed that their instructional expenditures per pupil were one-half of the cost in the MES schools.

A study of pupil mobility in the 10 Old and 11 New MES schools showed that, in the Old schools, changes in mobility before and after the first year of the program were generally very small. In the second year of the program (1965-1966) 8 of the 10 Old MES schools showed declines in rate from the previous year. For the 11 MES Schools established in September, 1965, analysis of mobility trend data provides little information since these schools have not been in the program long enough to determine their effect upon pupil mobility.

Teacher mobility data for the period October, 1965, through June, 1966, were also analyzed. Only 2.7 per cent of the teachers transferred from their MES school to non-MES schools and an additional .4 per cent transferred to other MES schools in the city. In the MES schools all teachers were given the option of transferring at the end of the school year. In non-MES schools only 5 per cent maximum can transfer each year. The teacher mobility rates for all reasons combined (maternity, sabbatical, transfer, etc.) in the MES and control schools were found to be respectively 6.2 and 6.4 per cent.

The additional teaching positions assigned to the 21 MES schools brought average class size and pupil-teacher ratio in both years of the program well below average ratios for city elementary schools in general. The average class size for all 21 MES schools as of October, 1965 was 8.2 pupils less than the average for all other city elementary schools; pupil-teacher ratio was 10.8 pupils less.

A study of pupil attendance in the 21 MES schools showed that there was practically no change in attendance rates before and after the start of the program. As yet, there is no evidence that the MES program has had any appreciable effect on pupil attendance.

Achievement Test Results

A study was made of progress in reading and arithmetic by means of standardized tests for pupils participating in the More Effective Schools program. For pupils in the Old MES schools such progress was analyzed for one and two year periods; for pupils in the New MES schools progress was studied over a one year period.

Achievement test data were analyzed in relation to national norms in two ways. Grade scores attained were compared with the national norms applicable at initial and final testings, and the net change in pupil status in relation to the norm was noted. In general, for the three separate substudies in reading, the net change was favorable. That is to say, the grade scores were higher in relation to the norm at the final testing than they were for the initial test.

The second method of analyzing the standardized test results consisted of a comparison of the gains in grade score made between initial and final tests with the expected gains based upon the elapsed time between the testings. Here again the results for the three reading substudies were favorable in that, in most cases, the gains achieved exceeded the gains to be expected on the basis of national norms.

In a separate study of progress in first grade reading over a period of five school months in the Old and New MES schools, the findings showed that pupil gains exceeded the expected growth over the period studied.

An additional study compared reading growth in the 21 MES schools with selected control schools matched on the basis of ethnic composition of pupil register and third grade median reading grade score. The data showed that the grade groups in both the Old and New MES schools showed reading growth equal to or exceeding that for corresponding grade groups in the control schools, except in the case of the fourth grade in the Old MES schools.

Analysis of the data on pupil progress in arithmetic problem solving in the Old and New MES schools during the 1965-1966 school year produced findings which, in general, paralleled the results in reading achievement. Change in standing relative to the national norm improved over the experimental period for most grade groups. Similarly, the gains achieved usually exceeded expected gains postulated on the basis of elapsed time between initial and final tests.

There were some exceptions to the generally favorable results, but there were no instances of very poor achievement. The scores attained by specific groups of pupils may be consulted in Chapter 3.

Language Skills Projects

An analysis of oral communication skills of prekindergarten and kindergarten children in the MES schools was conducted during the 1965-1966 school year. The data were obtained from an Inventory of Oral Communication completed by classroom teachers and composed of 35 items grouped under the two headings, Expressive Ability and Receptive Understanding. During the 1965-1966 school year the inventory was completed by classroom teachers for 2,670 prekindergarten and kindergarten children in the MES program and the findings indicated that both the prekindergarten and kindergarten groups showed significant improvement from fall to spring of the school year as indicated by the proportion of the children falling within the two highest rating categories for each item.

As part of the MES program, the Bureau of Speech Improvement sends one speech teacher full-time to each MES school and each teach 20 different classes one period per week. The speech program's goals focused on such areas as listening habits, attitudes toward oral expression, oral language development, audibility and voice quality, and articulation and pronunciation. Some approaches used to achieve these program goals were creative dramatics, choral speaking, role playing, group discussions, exercises in correct phrasing, and word and sound pronunciation. In order to determine the existence of problems in such areas of speech as audibility, attitudes, rate of speech, vocabulary, foreign accent, and vocal quality, a speech checklist was completed by the speech teachers in the fall and spring of the 1965-1966 school year for a sample of the children in the program. Analysis of the data showed that the greatest number of children had problems with audibility and dialect in both the fall and spring. Children had the fewest problems with rate and hesitancy. The greatest improvement in the children was shown with respect to withdrawn attitude and audibility while the least improvement was shown in slow rate and uncooperative attitude.

Reactions of Administrators, Teachers and Parents to the MES Program

Analysis of the reactions of district superintendents, principals, teachers and parents in the program to certain aspects of it which were obtained from questionnaire responses in the spring of 1966 showed that the district assistant superintendents felt that reduced class size and the establishment of prekindergarten classes were very effective results of the program. They also indicated that more individualized instruction was possible as a result of the reduced class size and additional personnel. The principals' reactions were very similar to those of the superintendents; this group also cited reduced class size and more opportunity for individualized instruction as the chief benefits of the program. Both the principals and superintendents agreed that the program should continue, though 50 per cent of the responding principals proposed some modification from minor to major, most of them minor. The 900 teachers responding indicated much reduced class size and the daily preparation period as the most important features of the program to them in helping pupils learn. The parent reactions to the program generally echoed those of the administrators and teachers. This group cited improved reading as the outstanding benefit resulting from the program. Overall, for administrators, teachers and parents, the most strongly lauded aspect of the program was the small class size.

The principal reservations expressed concerning the program centered on doubts as to the desirability of heterogeneous grouping, the large number of additional school personnel and the need to meet the demands of community groups desiring the establishment of an MES program in their schools.

SOME CONCLUDING REMARKS

The findings of the appraisal of the More Effective Schools are generally favorable. The objectives have been implemented to a reasonable and satisfactory degree, considering all factors. Class size and pupil-teacher ratios have been very favorable. Pupil and teacher mobility present no major problems. Pupil attendance presents no problems.

Standardized test results in reading and arithmetic show favorable gains in ability and skills by the MES pupils whether or not they are compared in growth with national norms or with a comparable control group of schools. Speech and oral communication data also revealed growth of pupils.

The reaction of administrators, teachers, and parents to the MES program was definitely favorable. They favored reduced class size, individualized instruction, teacher preparation periods, prekindergarten classes, and personnel for improved services.

Analysis of costs has made it clear that the MES program requires considerable funding. On the basis of the evaluation as a whole, it would appear that the program needs to be kept essentially undiluted if it is to remain effective. If such elements as small class size are not retained, it is quite possible that the educational results will not be as favorable as this report has shown them to be.